



NAVAL POSTGRADUATE SCHOOL

MONTEREY, CALIFORNIA

THESIS

**ESCALATION AND RESOLUTION OF BORDER
DISPUTES AND INTERSTATE CONFLICTS IN AFRICA:
THE MALAWI—TANZANIA CASE**

by

Fulgence S. Msafiri

June 2011

Thesis Co-Advisors:

Heather Gregg
Frank Giordano

Approved for public release; distribution is unlimited

THIS PAGE INTENTIONALLY LEFT BLANK

REPORT DOCUMENTATION PAGE			<i>Form Approved OMB No. 0704-0188</i>	
Public reporting burden for this collection of information is estimated to average 1 hour per response, including the time for reviewing instruction, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding this burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden, to Washington headquarters Services, Directorate for Information Operations and Reports, 1215 Jefferson Davis Highway, Suite 1204, Arlington, VA 22202-4302, and to the Office of Management and Budget, Paperwork Reduction Project (0704-0188) Washington DC 20503.				
1. AGENCY USE ONLY (Leave blank)		2. REPORT DATE June 2011	3. REPORT TYPE AND DATES COVERED Master's Thesis	
4. TITLE AND SUBTITLE Escalation and Resolution of Border Disputes and Interstate Conflicts in Africa: The Malawi —Tanzania Case			5. FUNDING NUMBERS	
6. AUTHOR(S) Fulgence S. Msafiri			8. PERFORMING ORGANIZATION REPORT NUMBER	
7. PERFORMING ORGANIZATION NAME(S) AND ADDRESS(ES) Naval Postgraduate School Monterey, CA 93943-5000			10. SPONSORING/MONITORING AGENCY REPORT NUMBER	
9. SPONSORING /MONITORING AGENCY NAME(S) AND ADDRESS(ES) N/A				
11. SUPPLEMENTARY NOTES The views expressed in this thesis are those of the author and do not reflect the official policy or position of the Department of Defense of the U.S., or the Ministry of Defence Tanzania. IRB Protocol Number _____NA_____.				
12a. DISTRIBUTION / AVAILABILITY STATEMENT Approved for public release; distribution is unlimited			12b. DISTRIBUTION CODE A	
13. ABSTRACT (maximum 200 words) Border disputes cause strife worldwide, especially in underdeveloped countries. In Africa, border disputes are commonplace, and they produce bitter conflicts and tribulations. This thesis investigates the border dispute between Malawi and Tanzania over Lake Nyasa. It argues that the protracted dispute is the result of inaction and poor leadership, rather than 'colonial legacy.' Using game theory, this thesis demonstrates that partial sum games produce the best path for resolving this border dispute through communication and cooperation. Furthermore, the thesis argues that the establishment of democracy and rule of law, responsible leadership, and strong political will should create the conditions for successful compromise between the two countries. Without a negotiated settlement, Malawi and Tanzania's border dispute will continue to affect relations between the two countries and deplete natural resources in and around the lake.				
14. SUBJECT TERMS Border Dispute, Riparian Rights, Escalation, De-escalation, Political Will, Payoffs, Nash Equilibrium, Resolution, Social Contract.			15. NUMBER OF PAGES 87	
			16. PRICE CODE	
17. SECURITY CLASSIFICATION OF REPORT Unclassified	18. SECURITY CLASSIFICATION OF THIS PAGE Unclassified	19. SECURITY CLASSIFICATION OF ABSTRACT Unclassified	20. LIMITATION OF ABSTRACT UU	

NSN 7540-01-280-5500

Standard Form 298 (Rev. 2-89)
Prescribed by ANSI Std. Z39-18

THIS PAGE INTENTIONALLY LEFT BLANK

Approved for public release; distribution is unlimited

**ESCALATION AND RESOLUTION OF BORDER DISPUTES AND
INTERSTATE CONFLICTS IN AFRICA: THE MALAWI—TANZANIA CASE**

Fulgence S. Msafiri
Colonel, Tanzania Army
BS, Aircraft Mechanical Engineering, Military Technical College, 1986
MS, Engineering Management, University of Dar es Salaam, 1994
DPA, Public Administration, GIMPA, 2004

Submitted in partial fulfillment of the
requirements for the degree of

MASTER OF SCIENCE IN DEFENSE ANALYSIS

from the

**NAVAL POSTGRADUATE SCHOOL
June 2011**

Author: Fulgence S. Msafiri

Approved by: Heather Gregg
Thesis Co-Advisor

Frank Giordano
Thesis Co-Advisor

Gordon H. McCormick
Chair, Department of Defense Analysis

THIS PAGE INTENTIONALLY LEFT BLANK

ABSTRACT

Border disputes cause strife worldwide, especially in underdeveloped countries. In Africa, border disputes are commonplace, and they produce bitter conflicts and tribulations.

This thesis investigates the border dispute between Malawi and Tanzania over Lake Nyasa. It argues that the protracted dispute is the result of inaction and poor leadership, rather than 'colonial legacy.' Using game theory, this thesis demonstrates that partial sum games produce the best path for resolving this border dispute through communication and cooperation. Furthermore, the thesis argues that the establishment of democracy and rule of law, responsible leadership, and strong political will should create the conditions for successful compromise between the two countries. Without a negotiated settlement, Malawi and Tanzania's border dispute will continue to affect relations between the two countries and deplete natural resources in and around the lake.

THIS PAGE INTENTIONALLY LEFT BLANK

TABLE OF CONTENTS

I.	INTRODUCTION.....	1
A.	BACKGROUND	1
B.	SCOPE AND PURPOSE.....	2
C.	RESEARCH QUESTIONS	3
D.	PROBLEMS AND HYPOTHESIS	4
E.	METHODOLOGY	6
F.	ORGANIZATION OF THE STUDY	6
II.	CONCEPTUALIZING BORDER CONFLICT RESOLUTION.....	7
A.	INTRODUCTION.....	7
B.	GLOBAL BORDER CONFLICT RESOLVE IN DEMOCRACIES	12
C.	THE AFRICAN ENVIRONMENT	16
D.	THE MALAWI—TANZANIA BORDER CHALLENGE	27
E.	THE CONSEQUENCES OF THE BORDER DISPUTE BETWEEN MALAWI AND TANZANIA.....	30
F.	CONFLICT RESOLUTION PARADIGM	32
1.	Leadership Responsibility and Contribution	32
2.	Political Will	35
III.	GAME THEORY IN DISPUTE RESOLUTION	37
A.	INTRODUCTION.....	37
B.	PARTIAL-CONFLICT GAMES IN BORDER DISPUTES RESOLUTION.....	39
1.	The Game.....	39
2.	Noncooperative Solution and Nash Equilibrium	41
3.	Strategic Moves With Communication	42
4.	Prudential Security	43
5.	Interval Scaling by Utilizing Cardinal Values.....	46
6.	Cooperative Solution-Nash Arbitration Scheme.....	48
a.	Nash Arbitration Graphical Solution.....	49
b.	Nash Arbitration Algebraic Solution	52
IV.	CONCLUSION AND RECOMMENDATIONS.....	55
A.	CONCLUSION	55
B.	RECOMMENDATIONS.....	58
	LIST OF REFERENCES.....	59
	INITIAL DISTRIBUTION LIST	69

THIS PAGE INTENTIONALLY LEFT BLANK

LIST OF FIGURES

Figure 1.	Map of British East Africa (Railways, Towns and Products) (From: Probert Encyclopedia).....	9
Figure 2.	Tanzania Boundary With Neighboring Countries. (From: Airlineamb.org) ...	10
Figure 3.	The game: Tanzania Vs. Malawi	40
Figure 4.	Movement Diagram: Tanzania Vs. Malawi.....	41
Figure 5.	Tanzania's Security Level.....	44
Figure 6.	Malawi's Security Level	45
Figure 7.	The Malawi and Tanzania Ordinal Security Levels Snapshot.....	45
Figure 8.	The Game With Cardinal Values: Tanzania Vs. Malawi	46
Figure 9.	The Malawi and Tanzania Cardinal Security Levels.....	48
Figure 10.	Malawi vs. Tanzania: Graphical Solution Payoffs	49
Figure 11.	The Nash Arbitration Point-Graphical Solution	51
Figure 12.	Strategies Played by Malawi Vs. Tanzania.....	52
Figure 13.	The Contested Boundary (From: Google Earth Satellite Maps).....	55

THIS PAGE INTENTIONALLY LEFT BLANK

LIST OF TABLES

Table 1.	Changing Water Levels in Lake Nyasa and Land Use Changes in the Mount Livingstone Catchment Area (%) (From: Nindi, 2007).	31
Table 2.	Options available for Tanzania Ranked From Best To Worst (4 to 1)	40
Table 3.	Options available for Malawi Ranked from Best to Worst (4 to 1).....	40

THIS PAGE INTENTIONALLY LEFT BLANK

LIST OF ACRONYMS AND ABBREVIATIONS

AIDS	Acquired Immunodeficiency Syndrome
AU	African Union
CIA	Central Intelligence Agency
CIJ	Court of International Justice
DRC	Democratic Republic of Congo
EAC	East African Cooperation
EU	European Union
HIV	Human Immunodeficiency Virus
MDGs	Millennium Development Goals
MI	Malawi
OAU	Organization of African Unity
TZ	Tanzania
UG	Uganda
UK	United Kingdom
UN	United Nations
UNDP	United Nations Development Program
US	United States
WB	World Bank
WWI	World War One

THIS PAGE INTENTIONALLY LEFT BLANK

ACKNOWLEDGMENTS

I would like to extend my sincerest appreciation to the Department of Defense of the U.S. for sponsoring my studies at Naval Postgraduate School (NPS). Thanks also go to the Tanzanian Ministry of Defence for granting me permission to pursue studies in the Americas.

I am highly indebted to my advisors, Professor Heather Gregg and Frank Giordano, for outstanding guidance, tireless assistance, and critical comments on my thesis in spite of their overloaded schedules. Special thanks go to the DA Department lecturers and staff for constant support and encouragement.

I would like to thank the NPS community for making my stay in the U.S. fruitful, specifically the International Office for notable administrative support.

Finally, very special thanks should go to my life partner, Anna, and our children, Fulgence Jr. and Fredrick, for their spiritual support.

THIS PAGE INTENTIONALLY LEFT BLANK

I. INTRODUCTION

A. BACKGROUND

Since 1964, Malawi and Tanzania have been in a border dispute over Lake Nyasa. This conflict poses a threat to peace between the two countries. In Addition, the border dispute creates instability, slows the already inadequate socio-political and economic developments of both countries, and prevents policy paradigms for sustainable development in the region.

According to political scientist Jorge Dominguez, statistical studies illustrate that, “Territorial border disputes increased the probability of war and have higher probability of leading states to war than other kinds of disputes.”¹ Mandel asserts that boundary disagreements, which escalate to war, generally involve two neighboring countries that are underdeveloped. These warring factions usually have parity in military strength, belong to different alliances, and have ethnic, tribal or clannish differences.² Nindi, Gledinisch, and Guo claim resource scarcity generates hostility between neighboring nations more than any other causes.³ In essence, rivalry over limited resource, coupled with a population explosion, could escalate a border dispute into an armed conflict. The trio argues that the situation calls for the pragmatic management of resources in areas with border disputes.

¹ Jorge I. Dominguez, et al., “Boundary Disputes in Latin America,” *United States Institute of Peace*, <http://www.usip.org/files/resources/pwks50.pdf> (accessed June 14, 2010).

² Robert Mandel, “Roots of the Modern Interstate Border Dispute,” *The Journal of Conflict Resolution*, Vol. 24, No. 3 (September, 1980): 427 – 454, <http://www.jstor.org/stable/173640?seq=1> (accessed June 18, 2010).

³ Stephen J. Nindi, “Changing Livelihoods and Environment Along Lake Nyasa, Tanzania,” *African Study Monographs*, Suppl, 36, (March, 2007): 71 – 93, http://www.africa.kyoto-u.ac.jp/kiroku/asm_suppl/abstracts/pdf/ASM_s36/5ASM_Nindi2.pdf (accessed June 30, 2010); Nils Petter Gledinisch et al, “Conflict Over Shared Rivers: Resource Scarcity of Fuzzy Boundaries?” *Political Geography*, Elsevier Ltd, 25 (2006): 361 – 382, <http://www.elsevier.com/locate/polgeo> (accessed July 7, 2010); Rongxing Guo, “Cross Border Resource Management–Theory and Practice (The Final Report East Asian Development Network (EADN)) 2004,” <http://www.eadn.org/report/upweb/wp28.pdf> (accessed July 7, 2010).

Both Shah⁴ and Anyu⁵ argue that the effects of colonialism, specifically the creation of Africa's state borders, have created prolonged border disputes. Furthermore, in a 2007 study, Anyu claims that a majority of the 103 ethnic and interstate conflicts in Africa were the result of artificial boundaries drawn by colonial powers during the scramble for Africa in the mid 1880s. Prescott and Triggs confirm that interstate boundaries in Africa are the prominent *raison d'être* for conflicts in the region because their delimitation lacked important information about Africa's inhabitants and geographical data.⁶

Literature abounds regarding the basis of interstate border conflicts; however, there is meager, if any, literature that discusses explicitly the significance of a country's leadership in resolving such clashes. Wilson mentions that in ancient Greece, the Aetolian state's boundaries varied according to the disposition and tempo of the state's leadership. Consequently, Aetolia experienced confrontations with sister Greek states, and her reputation was compromised.⁷ Dominguez argues that some countries might boast of "political will" to solve such conflicts but, frequently, conflict-ridden countries do not have the necessary political will to find a resolution.⁸ This challenge begs an important question about leadership, what aptitude is required to make plausible decisions to mitigate or resolve border conflicts?

B. SCOPE AND PURPOSE

This thesis intends to look at the role of leadership in Africa; specifically its political will and prudence in resolving border conflicts. It will examine interstate border conflicts in Africa through the Malawi—Tanzania case. The problem of border disputes

⁴ Anup Shah, "Conflicts in Africa-Introduction," <http://www.globalissues.org/article/84/conflicts-in-africa-introduction> (accessed June 18, 2010).

⁵ J. Ndumbe Anyu, "International Court of Justice and Border-Conflict Resolution in Africa: The Bakassi Peninsular Conflict," *Mediterranean Quarterly*, Volume 18, Number 3, (Summer 2007): 39–55.

⁶ Robert Victor Prescott and William Doreen Triggs, *International Frontiers and Boundaries: Laws, Politics and Geography*, (Leiden: Koninklijke Brill NV, 2008), 91–96, <http://books.google.com/books?id=r4fJXX> (accessed July 9, 2010).

⁷ Nigel Guy Wilson, *Encyclopedia of Ancient Greece*, (New York: Routledge Taylor and Francis Group, 2006), 22, <http://books.google.com/books?id=aFtPdh6-2QC> (accessed June 26, 2010).

⁸ Dominguez, "Boundary Disputes in Latin America."

in Africa is not unique to Malawi and Tanzania. Indeed, 48 of the 54 African countries⁹ are involved in border disputes that range from long-established mutual variance to mottled one-sided charges.¹⁰ Only six nations are not involved in these conflicts, and some countries are involved in more than one. These clashes vary in strength from quiescent to active. Again, there is a correlation between these issues and other conflicts ongoing in Africa. As border disputes are often the underlying cause of other conflicts.

The principal argument here is that human factors influence border disputes. Especially influential is the role of leadership in determining plausible alternatives to the status quo. There is a need to utilize the contiguous geographical and cultural space between states to break the hostile vicious circle of conflicts generated by contested frontiers. In particular, this thesis will use the Malawi—Tanzania border dispute to expound on the wider threat posed by border conflicts. It will argue that, pro-active administrations can initiate peaceful negotiations and resolve these disputes in Africa and beyond. Additionally, leaders should devise means to control the diminishing natural recourses in the Lake Nyasa area and develop the region cooperatively. Stability and security are a prerequisite for growth; therefore, a peaceful environment will provide a proper setting for sustainable economic development.

C. RESEARCH QUESTIONS

In light of the factors influencing the interstate border conflict between Malawi and Tanzania, this thesis will look at the role of leadership and political will as possible means of de-escalating the dispute. The questions to be investigated are as follows:

1. What role has leadership played in either contributing to or mitigating the Malawi—Tanzania border dispute?
2. More specifically:
 - a) Is the boundary dispute primarily a colonial inheritance or something else?

⁹ “The Africa Guide,” *African Countries*, <http://www.africaguide.com/country.htm> (accessed July 25, 2010).

¹⁰ “International Disputes,” *CIA, The World Factbook – Field Listing*, <https://www.cia.gov/library/publications/the-world-factbook/fields/2070.html> (accessed June 26, 2010).

- b) Resources scarcity along Lake Nyasa is escalating the conflict. What joint strategies are in place to ensure stability? What policies should be in place to mitigate the conflict?
- c) Is political will and leadership sufficient to resolve the existing boundary dispute between Malawi and Tanzania? If not, what else should be done?

D. PROBLEMS AND HYPOTHESIS

Border disputes in Africa are among the most basic sources of bitter struggle in the region. They cause relentless strife, including refugee problems, environmental degradation, deforestation, small arms proliferation, organized crime, and other regional instabilities. Border disputes are very volatile; the contiguous countries' populations are increasing rapidly, while resources are dwindling, which creates hotbeds of conflict in the milieu. The Malawi–Tanzania border case is linked to the spurious demarcation of the border around Lake Nyasa, which was created by the Anglo-Germany Treaty of July 1, 1890:

To the south by the line that starts on the coast of the northern border of Mozambique Province and follows the course of the Rovuma River to the point where the Messinge flows into the Rovuma. From here the line runs westward on the parallel of latitude to the shore of Lake Nyasa. Turning north, it continues along the eastern, northern, and western shores of the lake until it reaches the northern bank of the mouth of the Songwe River.¹¹

Tanzania recognizes the potential threat of the border described above, and they have officially requested that their Malawian counterparts share the lake's resources. In addition, Tanzania proposed that the official boundary between the countries should follow the median line in Lake Nyasa. Malawi President Kamuzu Banda did not respond favorably to these requests:

¹¹ "Wilhelmine Germany and the First World War, 1890-1918, Anglo-German Treaty [Heligoland-Zanzibar Treaty] (July 1, 1890)," *Germany History in Documents and Images*, Volume 5, http://germanhistorydocs.ghi-dc.org/pdf/eng/606_Anglo-German%20Treaty_110.pdf (accessed June 21, 2010).

We will never recognize or accept this claim: we will never agree to the suggestion or proposal. The Lake has always belonged to Malawi....Everyone knew Nyerere as a coward and communist inspired jellyfish: We know while pretending to be a staunch supporter of the OAU, Nyerere is the worst agitator and betrayer of the cause for which the Organization was formulated. History, geography or even ethnical knowledge will convince Nyerere that four districts to the South of Tanganyika belong to us by nature. It is only that we respect the feasible unification of Mother Africa that we do not claim these districts. All that we are doing is setting [sic] historical truth.¹²

More recently, the Tanzanian Government set up a commission to work together with Malawi and draw salient recommendations to solve the border dispute. The Tanzanian Prime Minister Mizengo Pinda said, “Negotiations have been underway between Tanzania and Malawi to reach consensus on the boundary conflict. However, he admitted there has been a long standing tug of war in agreeing on where the correct boundary is located.”¹³ As a result of the different priorities and divergent policies of the two countries, the dispute has dragged on for a long time.

In view of the impending predicament, the dispute reflects lack of a resolute and sincere desire from the leadership to solve its own problems, and it is not a problem inherited from colonialism. Specifically, this thesis hypothesizes that:

1. The border dilemma coupled with poor leadership and a lack of political will, might lead to interstate conflict between Malawi and Tanzania.
2. The unresolved boundary treaty (referred to as colonial legacy) is an excuse for inaction between the two countries.
3. Resource depletion along Lake Nyasa will intensify the chances of clashes between the two nations.
4. Reduced conflicts will create an atmosphere that is conducive for enhanced bilateral cooperation and mutual development between the two states.

¹² James Mayall, “The Malawi -Tanzania Boundary Dispute,” *The Journal of Modern African Studies*, Volume 11, Issue No. 4, (December 1973): 611–628.

¹³ Faraja Jube, “Tanzania: Discussions to Solve Malawi Border Conflict Soon,” *The Citizen (Dar es Salaam)*, February 4, 2010, <http://allafrica.com/stories/201002050139.htm> (accessed June 19, 2010).

This thesis will also examine international laws governing inland waterways and lakes and the possibility of a peaceful de-escalation of the problem by pursuing of a plausible solution through arbitration.

E. METHODOLOGY

This thesis will employ two methods to investigate possible solutions to the border dispute between Tanzania and Malawi over Lake Nyasa. First, it will offer a historical analysis of the region, highlighting the conditions that led to the border dispute between the two countries. The thesis will also draw from political science literature that looks at the role of democracy and international arbitration in resolving conflicts through negotiations, rather than armed conflicts.

Second, this thesis will employ mathematical tools, specifically game theory, to demonstrate the importance of cooperation in conflict resolution. It will look at cooperation, which permits communications and results in mutual gains for each opponent through partial sum games. It will also show the poor payoffs achieved from selfish strategic moves, specifically through the absence of communication between Tanzania and Malawi. Improved payoffs, in turn, are realized by better communication. Finally, win-win achievements are recognized at the Nash equilibrium of both countries.

F. ORGANIZATION OF THE STUDY

Chapter II begins by reviewing the literature on border conflicts and investigating the extent of the problem both globally and in Africa. The chapter then looks at the history of the border dispute between Malawi and Tanzania over Lake Nyasa. It proposes that the role played by democracy, specifically governance to mitigate border problems, is a potential solution to the conflict. Explicitly, it addresses the invaluable contribution of leadership and political will. Chapter III uses game theory to explore conflict resolution, underpinning the importance of cooperation in nations' efforts to resolve conflicts. In particular, teamwork can promote progress amidst rivals once the will to mutually gain from an antagonistic situation is engendered. Chapter IV recaps issues echoed in the thesis and suggests ways to resolve the Malawi-Tanzania border dispute.

II. CONCEPTUALIZING BORDER CONFLICT RESOLUTION

You take my life when you take the means whereby I live.

—William Shakespeare, *The Merchant of Venice*

A. INTRODUCTION

Nations go to war for several reasons, among them disputes over interstate boundaries and associated competition over resources along frontiers. The basis of the conflict between Malawi and Tanzania is Malawi's claim to the waters of a lake whose very name they dispute. Malawi calls it "Lake Malawi" as opposed to the more traditional name of "Lake Nyasa."¹⁴ Many ethnic groups, among them the Yao, Mang'anya, Konde, Matengo, Tonga and Nyakyusa reside harmoniously along the shores of Niassa/Nyassa, which means "any large body of water."¹⁵ The tribes' livelihood depends mainly on the resources from the Lake and the surrounding countryside. Prior to the demarcation of Africa, the people coexisted peacefully and permitted free migration and trade in the general area; in fact they are kinfolk.

The arbitrary creation of the African boundaries determined in Berlin from 1884 to 1885,¹⁶ forced families to reside in two neighboring states. Some lived in the Germany colony of Tanganyika and others in Nyasaland, ruled by the United Kingdom. At the time of independence for both countries, Tanganyika in 1961, which later become the

¹⁴ David Livingstone named the lake after being informed by the Yao tribe (who live in both countries) that in chiYao, "nyasa," means "lake," see: Peter Godwin, *When a Crocodile Eats the Sun: A Memoir of Africa* (New York: Little, Brown and Company, 2008), 153. See also: "Lake Nyasa Facts, information, pictures," *The Columbia Encyclopedia*, Sixth Edition, 2008, Encyclopedia.com, <http://www.encyclopedia.com/doc/1E1-Nyasa-la.html> (accessed July 8, 2010).

¹⁵ Nindi, "Changing Livelihoods and the Environment Along Lake Nyasa, Tanzania," 71-93; "Lake Nyasa: Definition," Answers.Com, <http://www.answers.com/topic/lake-malawi> (accessed July 6, 2010).

¹⁶ "The Partition of Africa|The Black Past: Remembered and Reclaimed," BlackPast.org, <http://www.blackpast.com/?q=gah/partition-africa> (accessed June 15, 2010).

United Republic of Tanzania in 1964, and Malawi inherited the counterfeit boundary.¹⁷ The Anglo-German Treaty of 1890, which sealed the fate of the two states, is the basis for the conflict.¹⁸ Britain and Germany made some administrative amendments along the Malawi—Tanzania border before 1914, and both realms shared the lake prior to the First World War (WWI). Colonial powers deployed gunboats in Lake Nyasa before the war. On August 13, 1914, the British gunboat Guendolen destroyed the German gunboat Hermann Von Wissmann at Sphinxhaven in Lake Nyasa.¹⁹ For no apparent reason, the British colonial administration placed the lake's entire water surface under the authority of the territory of Nyasaland. This is the origin of the post WWI disagreement. The consequent border skirmishes subsided after Malawi failed to impose its claim. However, in the 1990's Tanzanians residing along the shores of Lake Nyasa were occasionally accused of fishing in Malawian waters, which prompted outcries from the Malawian Government.²⁰

A recent study on the East African region by political scientist F. Wafula Okumu has brought to the forefront both the growing frontier disputes over resources and the fast population growth in the area. Okumu describes chronological and modern reasons that impact the problem, arguing that, "...each of the countries in Eastern Africa has had at least one border dispute with a neighbor, mainly over territorial claims, mostly over lack of clearly defined and marked boundaries, the availability of trans-boundary resources, and security-related matters."²¹ Furthermore, he asserts that Belgium, Germany, Great Britain, Italy, and Portugal drew the East African boundaries to further their strategic

¹⁷ "International Boundary Study, No. 37 - October 26, 1964, Malawi – Tanzania (Tanganyika and Zanzibar) Boundary,' (Country Codes: MI – TZ), *Department of State: United States of America*, <http://www.law.fsu.edu/library/collection/LimitsinSeas/IBS037.pdf> (accessed June 15, 2010).

¹⁸ "Wilhelmine Germany and the First World War, 1890-1918, Anglo-German Treaty [Heligoland-Zanzibar Treaty] (July 1, 1890)," *Germany History in Documents and Images*, Volume 5.

¹⁹ The Guendolen vs. Hermann Von Wissmann, http://www.clash-of-steel.org/pages/battle_details.php?battle=GUENDOLENVOI (accessed July 6, 2010).

²⁰ "Information and Data About Marketing, Finance, Business, Healthcare, and Classifieds Reach Information," *Lake Malawi*, <http://www.reachinformation.com/define/Lake%20Malawi.aspx> (accessed July 6, 2010).

²¹ "Colonial Errors Border Disputes in East African Region," *Diplomat East Africa*, http://diplomateast.africa.com/index.php?option=com_content&view=article&id=360:colonial-errors-border-disputes-in-ea-region&catid=1:dna&Itemid=66 (accessed January 13, 2011).

colonial interests. Ironically, about a century ago, rival colonial powers, Britain and Germany, shared the lake. Today, two independent states are failing to do the same.

Germany lost its colony in East Africa after its defeat in the WWI. The United Kingdom (UK) held on to Malawi and, at the same time, the League of Nations Mandate, entrusted Britain with the management of Tanganyika Territory, the former German East Africa colony. Britain could have solved the border dispute between Malawi and Tanzania like it did the dispute between Malawi and Mozambique; however, Britain did not pay suitable attention to the issue on the Tanzanian side. Furthermore the British maps used while ruling both countries were ambiguous. Even today, maps are not reliable; some of them designate the boundary at the Eastern side of Lake Nyasa while others designate it at the lakes' midline as depicted in the 1937 map shown in Figure 1.

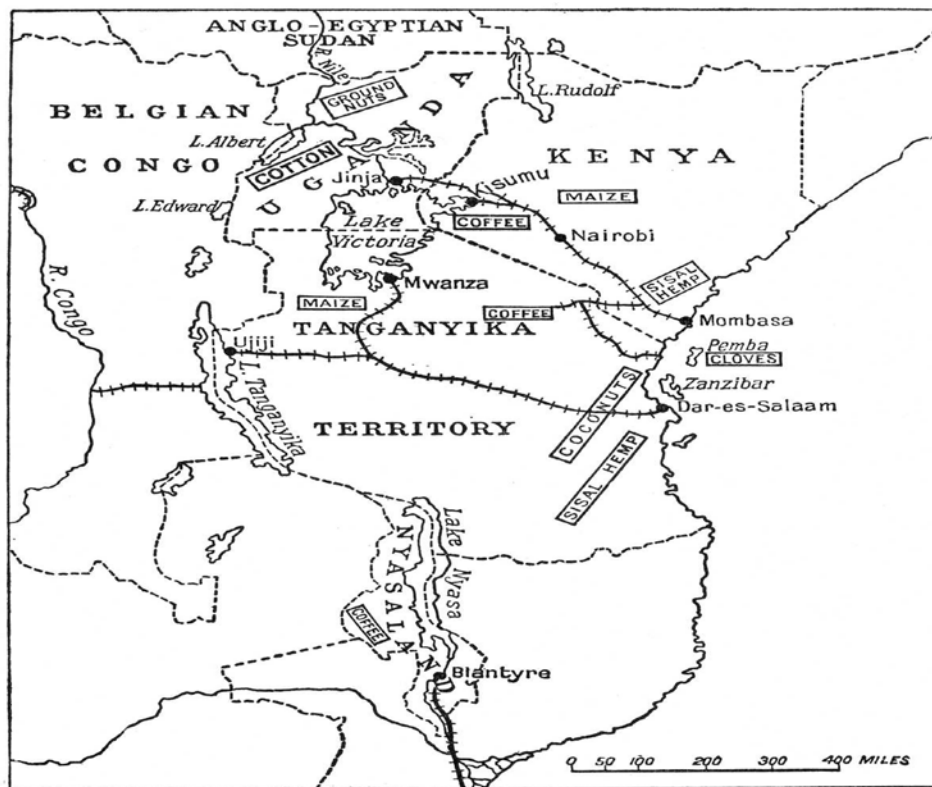


Figure 1. Map of British East Africa (Railways, Towns and Products) (From: Probert Encyclopedia)

Since 1967, the border dispute between Malawi and Tanzania has remained unresolved, critically impairing the livelihood and basic needs of the Tanzanian citizens

living along the lake's shores. The border dispute is further aggravated by a scarcity of resources in that area amidst rapid population growth. By contrast, Lake Victoria in the North and Lake Tanganyika in the West of Tanzania are shared by respective neighboring countries. In addition, the problem between Malawi and Mozambique over the boundary in Lake Nyasa was resolved in November 1954 by an agreement endorsed by Britain and Portugal.²² The boundaries along the lakes in the Great Lakes Region of Africa are shown in Figure 2.



Figure 2. Tanzania Boundary With Neighboring Countries. (From: Airlineamb.org)

Malawi claims the boundary line should pass along the Eastern border (as shown in Figure 2), while Tanzania insists it should pass along the median line as depicted in Figure 1 similar to the international boundary between Malawi and Mozambique as indicated in both maps. According to Ewan Anderson, “The entire section of the

²² Mayall, “The Malawi-Tanzania Boundary Dispute.”

boundary along the shoreline of Lake Nyasa is under dispute. Tanzania claims that, from the mouth of River Songwe, the boundary should follow the lake's median line to a tri-point with Mozambique which should be on the median line."²³ Tanzania maintains three riparian states, Malawi, Mozambique and itself, should share the lake. On the other hand, Malawi claims the whole body of water, except a certain part of the lake falls to Mozambique. The name of the lake is also not clear-cut; Malawi alleges the lake is "Lake Malawi," while Tanzania and the main stream internationally made maps refer to the historic name, "Lake Nyasa."²⁴

In the present day, resources from the lake constitute the livelihood for the inhabitants dwelling in the background; however, they are thinning at an alarming rate. Furthermore, the problem is exacerbated by high population growth and the destruction of water catchments in the surrounding highlands, which decreases water levels in the lake. Additionally, overfishing, sediment loading, and several other climatic changes have multiplied the problem.²⁵ Unquestionably, this situation creates instability in the region. This security threat needs to be addressed for the mutual benefits of both Malawi and Tanzania.

One can argue that poor political leadership deprives people of their means of livelihood, their constitutional rights, and hence their liberty, the essence of life itself. Preservation of citizen life is a noble duty vested in country's administration. Therefore, leadership commitment and political will should aim to resolve political problems, including border disputes. The claim that colonialism is the root cause for conflicts in Africa, which resulted in underdevelopment, is no longer an acceptable. Now, more than ever, it is paramount for African leaders to eschew such thoughts and accept responsibility for the continent's sustainable development. Leadership should possess a

²³ Ewan W. Anderson, *International Boundaries: A geographical Atlas*, (New York: Routledge, 2003), 516, <http://books.google.com/books?id=E7menNPxREC&pgEwAQ#v=onepage&q=1901%20boundary%.pdf> (accessed June 12, 2010).

²⁴ "Lake Nyasa Definition," *Britannica Concise Encyclopedia*, <http://www.answers.com/topic/lake-malawi> (accessed June 2, 2010).

²⁵ Nindi, "Changing Livelihoods and the Environment Along Lake Nyasa, Tanzania," 71-93; Harvey A. Bootsma, Lake Malawi/Nyasa, "Experience and Lessons Learned Brief," *Great Lakes WATER Institute*, University of Wisconsin-Milwaukee, USA, http://www.iwlearn.net/publications/II/lake_malawi_nyasa_200.pdf (accessed July 13, 2010).

vision, maintain a personal connection with it, and address concerns adequately and aptly. Growth requires an in-depth capacity to analyze issues and make resourceful decisions, devise means to resolutely implement the vision, and make a serious commitment to the cause of Africa's development. Good leadership entails an unflinching commitment to empower the people to ensure their livelihood. This will confirm legitimacy and establish allegiance to authority, create a firm foundation for harmony and stability, and spur a continuous growth. Simultaneously, governments should devise feasible developmental plans coupled with aggressive financial systems that will enable countries to compete in the global market.

Boundary conflicts are not limited to Africa; they span the whole world and pose a real threat. To appreciate the intensity of global boundary disputes consider the following: only 60 states out of 194 nations and 71 auxiliary states are free of border disputes.²⁶ Furthermore, a great number among of those 60 countries are islands. Even they are not all completely free of minor boundary skirmishes within their territorial or international waters. Blanchard claims that boundary wrangles constitutes the majority of problems that escalates into feud.²⁷ The issue requires sober efforts to address security problems linked with border instabilities.

B. GLOBAL BORDER CONFLICT RESOLVE IN DEMOCRACIES

In 2002, the United Nations Development Program (UNDP) declared in a report that democracy is a prerequisite for human development, "Countries can promote human development for all only when they have governance systems that are fully accountable to all people-and when all people can participate in the debates and decisions that shape their lives."²⁸ Scholars connect democracy to ancient Greece; it's meaning is simply 'rule by the people'. However, today, the democratic system is largely an ideal. Leaders in a

²⁶ "International Disputes," *CIA, The World Factbook – Field Listing*.

²⁷ Jean-Marc F. Blanchard, "Linking Border Disputes and War: An Institutional – Statist Theory," *Geopolitics*, Volume 10, Issue 4, (Winter, 2005): 688–711, <http://www.ingentaconnect.com/content/routledg/geo/2005/00000010/00000004/art00008> (accessed June 16, 2010).

²⁸ United Nations Development Program (UNDP), "Deepening Democracy in a Fragmented World," *UNDP Human Development Report 2002* (New York: Oxford University Press, 2002), 3.

democracy have the wisdom, courage, and capacity to choose and implement what adequately serves the common good. Consequently, citizens have the strength, skills, and honor to respond rightfully and dynamically; both sides mutually furnish the foundation for growth. Liberal democracy has been a model of success in Europe and North America. As a result, it is resolutely claimed that, 'Western Democracy,' has created a firm foundation for stability and security, which in turn formed an enabling environment for development in the West. Leadership and political will make the difference.

Governments worldwide have endeavored to attain political stability and economic prosperity for their people in a multitude of ways. However, challenges related to border disputes compound their problems and the ensuing instability puzzle requires multiple equations for its solution. Nyerere observed in his 'Stability and Change in Africa Speech,' given to the University of Toronto, Canada on October 2, 1969, "If a door is shut, attempts should be made to open it; if it is ajar, it should be pushed until it is wide open. In neither case should the door be blown up at the expense of those inside."²⁹ This underpins the importance of cooperation for the development of human societies. Huntington observed, "The most important political distinction among countries concerns not their form of government, but their degree of government."³⁰

Political stability, which flourishes in the West, is a result of democratic principles preserved in pertinent constitutions, which enabled preemption of radical and rebellious inclinations in society and ultimately debilitated individual whims that may arise and cause socio-political dissension. Citizens use the ballot box and the judiciary system to reconcile disputes. Freedom of speech and relations among individuals and the whole multitude is highly if not fully enjoyed. There is ample room for movement, which enables continuous cooperation in all realms of life including political, spiritual, and philosophical. What's more, a system exists to ensure that the executive, legislative, and

²⁹ Alistair Boddy-Evans, "Julius Kambarage Nyerere Quotes," <http://africanhistory.about.com/od/biography/a/qts-Nyerere01.htm> (accessed December 15, 2010).

³⁰ Samuel P. Huntington, *The Third Wave: Democratization in the Late Twentieth Century* (Oklahoma: University of Oklahoma Press, 1991), 26–28.

the judiciary branches are evenhanded to perform their respective duties rightfully.³¹ In a democracy, leadership resourcefully bears the heavy responsibility of serving people, and they are proud to do so, as illustrated below:

Democracy is this: democracy is that the men of the government are no longer the masters of the people. They are the servants of the people. What make a man a master of another man? It is that he pays for him for his work. Who pays the men in the government? The people do, for they pay the taxes out of which they are paid.³²

On the one hand, keen administrators are compelled to listen intuitively, and to respond prolifically and adequately to make their citizens' life affordable. As argued by Locke, "Government exists to protect individuals' liberty and security, and that its legitimacy rests upon the consent of these individuals. Such a government rests upon this contract with individuals, and this contract specifies the appropriate relationship between citizens and political institutions."³³ This relationship should also be nurtured and maintained on a continuous basis to ensure enduring progress.

On the other hand, citizens have a contractual obligation to play to ensure a cooperative environment and maintain stability and security in a nation. Tocqueville states, "Thus the most democratic country on the face of the earth is that in which men have, in our time, carried to the highest perfection the art of pursuing in common the object of their common desires and have applied this new science to the greatest number of purposes. Is this the result of accident, or is there in reality any necessary connection between the principle of association and that of equality?"³⁴ Undeniably, simple objectives are not achieved by chance, and chance cannot shape a national destiny; rather nations realize their mutual needs by formulating applicable policies for subsequent

³¹ John Fox Jr. and Michael Warner, "Counterintelligence: The American Experience," in *Vaults Mirrors and Masks: Rediscovering US Counterintelligence*, ed. Jennifer E. Sims and Burton Gerber (Washington D.C: Georgetown University Press, 2009), 52–53.

³² John Hersey, *A Bell for Adano* (New York: Random House Inc., 1946), 45.

³³ Conor Williams and John Halpin, "The Progressivism of America's Founding," Center for American Progress, <http://www.americanprogress.org/issues/2010/10/pdf/progressivetraditions5.pdf> (accessed December 15, 2010).

³⁴ Tocqueville: Book II Chapter 5, http://xroads.virginia.edu/~HYPER/DETOC/ch2_05.htm (accessed December 15, 2010).

implementation through well-devised strategies. Citizens must respond conscientiously in lieu of the dispensation of liberty bestowed upon them. They mutually invest in stability and security as the prerequisite for sound internal and external development.

After the Cold War, the United States and the European Union (EU), via Transatlantic Security Relations, have dealt with security problems on two main levels: the global-strategic and domestic security. Internationally, the U.S. has taken the lead in the Global War on Terror. On the domestic front, the West has relative stability, because it has a solid democratic foundation characterized by democratic maturity. Indeed democracies seldom resort to military confrontations against each other and even practice restraint from making the first move towards non-democratic states in the areas of border disagreement.³⁵ North America and European countries are free of border conflicts. Appropriate border management policies enable amicable coexistence. Therefore, the EU is a stable alliance and has no active border disputes. Moreover, 22 EU member States have agreed to free migration and the coordination of border management by endorsing the Schengen Agreement or “acquis” of 1985 and 1990. This was enacted into law in the Treaty of Amsterdam on May 01, 1999 and subsequent member states approved the accord.³⁶ A commission is working on the autonomy of Denmark over Hans Island and the Kennedy Channel between Ellesmere Island and Greenland, as set in Article 76 of the United Nations Convention on the Law of the Sea.³⁷ Canada and the U.S. established a commission to manage the 5,525 miles of boundary traversing the Americas from the Atlantic Ocean to the Pacific Ocean. The commission administers legal aspects and law enforcement for all activities ongoing along the boundary.³⁸ The U.S. and Canada are also working tirelessly on the boundary inquiry around Northwest

³⁵ Paul K. Huth and Todd L. Allee, *Democratic Peace and Territorial Conflict in the Twentieth Century* (Cambridge: Cambridge University Press, 2003), 1–2.

³⁶ “International Disputes,” *CIA, The World Factbook – Field Listing*.

³⁷ *Ibid.*

³⁸ “The International Boundary,” *International Boundary Commission*, <http://www.internationalboundarycommission.org/boundary.html> (accessed June 22, 2010).

Passage and legal utilization of the waters across the international border. Regarding the U.S. border with Mexico, both countries assented to an accord to manage the Rio Grande and Colorado River on April 18, 1972.³⁹

C. THE AFRICAN ENVIRONMENT

Instability in Africa is commonplace. Fortunately, contemporary trends show that armed conflicts are diminishing and recent observations illustrate further improvement in the last five years.⁴⁰ However, Dare's 2001 observations about an Africa beleaguered by authoritarian rulers, nonprogressive governments, and tenuous financial systems still ring true. Governments are still failing to maintain social and political structure:

African unemployment rates are at crisis levels, with over 65% of college graduates out of jobs. Because manufacturing is at low ebb, unskilled workers suffer a similar fate. Wages are also low. According to the United Nations Development Report, the average unskilled worker earns about 55 cents daily, while the average white-collar employee brings home a monthly check of between \$50 and \$120. Many African societies are characterized by minimal opportunities for education and self-development, collapsed infrastructure, and a debilitating debt burden.⁴¹

Regarding conflicts in Africa, Cleveland claims that, "Despite being one of the richest regions, in terms of human and natural resources, extreme poverty and hunger abound on the continent."⁴² Furthermore, a snapshot of Africa reveals deforestation, fast expansion of the Sahara Desert towards the South, small arms proliferation, and cross-border crimes. In addition to these problems, there exists a debilitating growth factor of

³⁹ Jenny Martinsson, "Changes in the Course of the River Komadugu Yobe During the 20th Century at the Border Between Niger and Nigeria," Master's Thesis TVVR 10/5005, Lund University, <http://lup.lub.lu.se/luur/download?func=downloadFile&recordId=1546003&fileId=1546009> (accessed December 20, 2010).

⁴⁰ Monty G. Marshall, "Conflict Trends in Africa, 1946-2004: A Macro-Comparative Perspective," Centre for Systemic Peace, [http://www.systemicpeace.org/africa/AfricaConflictTrends MGM 2005us.pdf](http://www.systemicpeace.org/africa/AfricaConflictTrends_MGM_2005us.pdf) (accessed June 14, 2010).

⁴¹ Dare S., "A Continent in Crisis. Africa and Globalization," *Dollars and Sense Magazine*, July/August Issue 2001, http://www.thirdworldtraveler.com/Africa/Continent_Crisis.html (accessed June 16, 2010).

⁴² Cutler J. Cleveland, "Armed Conflict in Africa: A Threat to Regional Cooperation," The Encyclopedia of the Earth, http://www.eoearth.org/article/Armed_conflict_in_Africa:_a_threat_to_regional_cooperation (accessed July 25, 2010).

diseases, especially Malaria and Acquired Immune Deficiency Syndrome (AIDS). If Africa is endowed with abundant human resources, categorically the basis for human economic growth, what is lacking and holding back its development?

In his memoir about Africa, Godwin notes the dismal state of affairs in the continent and claims the trend of Africa's conflict development is inexcusable:

Africa unfolds like a geography of doom. Sierra Leone, where hacking off of limbs was standard practice; Liberia, where peacekeeping Bangladeshis in blue helmets were struggling to separate teenage gunmen wearing women's clothing; Ivory Coast divided between bitter ethnic rivals; Congo, where civil wars still raged in a nation that has ceased to be and probably never was; Sudan, where a civil war still rages and triggers frequent spasms of famine; Somalia, which has no government at all now, a country that deserves the description anarchic. And, of course, everywhere AIDS.⁴³

The standoff in Ivory Coast following the November 28, 2010 presidential elections still rages on and the country is now on the brink of internal war.⁴⁴ The situation is additionally aggravated by conflicts emanating from artificial borders. Of the thirty-three countries worldwide considered at high risk for instability, twenty are African. The state fragility index of 2008 indicates that almost 80 percent of the African continent falls within the serious to extreme band of the directory.⁴⁵ Independence for the African states was necessary and it is precious. It was an indispensable step in breaking the colonial yoke and establishing a solid foundation for human freedom and dignity. However, the drift towards social and political instability indicates poor governance. Was sovereignty a predecessor to strife? Does Africa desire to be left out of the world development loop?

⁴³ Peter Godwin, *When a Crocodile Eats the Sun: A memoir of Africa* (New York: Little, Brown and Company, 2008), 203–204.

⁴⁴ "Situation in Ivory Coast Grows Dire," *Special Reports*, (Published: March 14, 2011), http://www.upi.com/Top_News/Special/2011/03/14/Situation-in-Ivory-Coast-grows-dire/UPI59601300120633/#ixaa1GkjJXLfE (Accessed March 16, 2011).

⁴⁵ "Global Conflict Trends. Systemic Peace," University of Maryland's Centre for International Development and Conflict Management, *Global Conflict Trends*, <http://www.systemicpeace.org/document.htm> (accessed June 16, 2010).

While reporting on the Bakassi border dispute resolution, Somerville pinned the colonial legacy to clashes related to boundaries in Africa.⁴⁶ Adebajo and Landsberg support this school of thought, arguing that imperial administrators drew boundaries in the continent without ethnic perspective. They cited conflicts in Sudan, where Arab-Muslim inhabits the North and a mixture of Blacks Christians and Animists inhabit the South. They also point to Rwanda, where Tutsis and Hutus are always fighting, and the Democratic Republic of Congo (DRC), which is home to a number of different ethnic groups. They concluded, “Borders in Africa are in many cases artificial.” They may ferment domestic discords among tribes in a country, break up states, and generate intrastate, transnational, and international divergences.⁴⁷

The above assertion may be true, but it is not sufficient to explain the persistence of border disputes in Africa. For five decades, more than a generation, African governments have failed to devise sound policies to build a system of governance capable of solving its problems. After the end of colonialism, they should have established essential institutions to address development challenges. Instead they fostered continued conflicts. According to Diamond, some governments know the possible costs associated with bad decisions, but do not take the necessary remedial measures for several reasons, including, “ignorance, idleness, reasoning by false analogy, distant managers, and creeping normalcy or landscape amnesia.”⁴⁸ It is invaluable to focus on Gerzon’s suggestions about the importance of leading through conflict situations. He argues that, all leaders, on the individual, organizational, and national levels, lead in conflict. Therefore, it is necessary to have tools to enable efficient and successful leadership. The five of Gerzon’s eight tools that are most significant to resolve border conflicts include, ‘integral vision, presence, conscious conversion, dialogue, and bridging.’⁴⁹ Perhaps more

⁴⁶ Keith Somerville, “Border Dispute an African Colonial Legacy,” BBC News Online, Thursday October 10, 2002, <http://news.bbc.co.uk/2/hi/africa/2316645.stm> (accessed June 11, 2010).

⁴⁷ Adekeye Adebajo and Chris Landsberg, “Pax Africana in the Age of Extremes,” *South African Journal of International Affairs*, Vol. 7, No.1 (Summer, 2000): 12–15.

⁴⁸ Jared Diamond, *Collapse: How Societies Choose to Fall or Succeed* (New York: Penguin Group, 2005), 419–427.

⁴⁹ Mark Gerzon, *Leading Through Conflict: How Successful Leaders Transform Differences Into Opportunities* (Boston Massachusetts: Harvard Business School Press, 2006), 1–14.

importantly is the need to avoid Shore's seven 'cognition traps' (Exposure Anxiety, Cause fusion, Flat View, Cure-Allism, Infomania, Mirror Imaging, and Static Cling).⁵⁰ Shore argues that the seven cognitive traps distract clever people and lead them to make bad decisions. This problem cuts across nations and leaders in both developed and developing countries should seriously consider it. Gerzon's eight tools and Shore's seven cognitive traps are important for understanding both the ongoing border dispute in Africa and specifically the dispute between Malawi and Tanzania.

After independence, some African leaders greatly contributed significantly to the ongoing conflicts in the region. Many asserted single party systems would create unity and stability; however, partiality and corruption within the ruling elite intensified in due course. As a result, "The state became a cash cow to be milked for political patronage. Urban bias in development policies further created an aggrieved countryside full of a ready army of unemployed youth who have today become the cannon fodder of Africa's warlords."⁵¹ Likewise, windows for dictatorial rules, multiple mutinies, and eventually failed states were opened making the situation troublesome and incomprehensible. In fact, since the self-rule era in Africa began, there have been scores of attempted revolts, and 80 successful armed coup d'état. As a result there are states like the DRC, Rwanda, Ethiopia, Somalia, Sudan, Cote d'Ivoire, and Liberia, which are all recent hot spots and deteriorating nations.⁵² The Carter Center has been spearheading the development of democracy in Africa, but the situation is not simple, "No handful of facile formulas can overcome Africa's travail. No single observer is likely to have sufficient breath of perspective or vision to propound a definitive charter for future resurrection."⁵³

It is manifest that, contrary to democratic principles, corruption has blinded elites. Rabasa asserts that bureaucrat distortion in developing countries (including Africa) is

⁵⁰ Zachary Shore, *Blunder: Why Smart People Make Bad Decisions* (New York Bloomsbury, 2008), vii, 1–11.

⁵¹ Adekeye Adebajo, "Building Sustainable Peace," *Towards Pax Africana: Building Peace in Africa*, (Prepared for web discussion), September 2006, <http://www.trustafrica.org/documents/adebajo.pdf> (accessed December 19, 2010).

⁵² Adebajo and Landsberg, "Pax Africana in the Age of Extremes," 12–15.

⁵³ "The Democratic Challenge in Africa," *The Carter Center*, Working Papers, <http://www.ciaonet.org/conf/car/03> (accessed November 8, 2010).

intense, “This kind of corruption is commonplace in the developing world. It diverts public funds for private use, perverts due process to undermine the law, protects officials and their cronies from prosecution, and otherwise destroys the effective functioning of institutions of government for the public good.”⁵⁴ The political environment in African countries has become a breeding ground for strife and dissent. Citizens in Africa, particularly south of the Sahara, are become desolate. They suffer from poverty, fear, unquestionable authority, the abuse of power, and misappropriation of public funds. Poverty exacerbates hostility and distortion; it also undermines the social-economic foundation of stability.⁵⁵ In such a precarious situation, people become despondent as they find themselves captive in their own homes. Consequently, insecurity and instability proliferate in the continent. The implementation of democracy is a learning process; Nyerere noticed the importance of democracy to Tanganyika at independence:

Having come into contact with civilization, which has over-emphasized the freedom of the individual, we are in fact faced with one of the big problems of Africa in the modern world. Our problem is just this: how to get the benefit of European society-- the benefits that have been brought about by an organization based upon the individual-- and yet retain African's own structure of society in which the individual is a member of a kind of fellowship.⁵⁶

Nyerere was convinced that there was no better alternative to a democratic society. However, he needed to lay a sound foundation prior to devising and implementing a contemporary social-economic structure. Politically, he was not a Marxist, but a socialist. He believed in using authority for socio-political revolution rather than for imposition of power. Nyerere was a servant of the people and truthful leader:

⁵⁴ Angela Rabasa et al, *Ungoverned Territories: Understanding and Reducing Terrorism Risks*, RAND Project Air Force, (Santa Monica, CA: The RAND Corporation, 2007), 36. http://www.rand.org/content/dam/randpubs/monographs/2007/RAND_MG561.pdf (accessed March 26, 2011).

⁵⁵ Cristiana C. Brafman Kittner, “The Role of Safe Havens in Islamist Terrorism,” *Terrorism and Political Violence*, Volume 19, Issue 3, (2007): 307 – 329, <http://www.informaworld.com/smpp/content~content=a780502437~db=all~order=page.pdf> (accessed March 26, 2011).

⁵⁶ Boddy-Evans, “Julius Kambarage Nyerere Quotes.”

He is not just a servant of his people. He has always been a leader with strong convictions about his peoples needs. Nyerere has been above all a teacher, *a mwalimu*. He is a teacher of a special sort. He is a teacher of morality. However, Nyerere is not just *a mwalimu*. He is *a mwalimu-in-power*-a moral teacher who is also a political leader with a great deal of authority and power.⁵⁷

Nyerere's viewed democracy as essential feature of the transition to socialism, and he said, "The people must make the decisions about their own future through democratic procedure. Leadership cannot replace democracy; it must be part of democracy."⁵⁸ Similarly, when asked by his critics if democracy threatened socialist ideals, Nyerere responded:

I know that there are, even in Tanzania, some beliefs that periodic elections are dangerous. It is said that they give to the enemies of our people and of our political system an opportunity to sow confusion: it is sad they could be used to destroy our unity; that they could be used to get rid of good leaders and replace them with bad leaders... I myself am aware that periodic elections do bring these dangers. Yet I am quite unable to see what we can put in their place.⁵⁹

Nyerere could not be swayed from democratic principles. However, in many African countries, political transitions are associated with rigged elections, intimidation, rejection of election outcomes, and the refusal to relinquish power according to constitutions. The world saw what transpired in Kenya⁶⁰ and in Zimbabwe, "Mugabe has three options: admitting defeat, staging a military takeover, or rigging the results."⁶¹ His choice is known. Others have distorted respective constitutions to remain in power without limits. Currently the world observes the political standoff in Cote-d'Ivoire, where

⁵⁷ Robert H. Jackson and Carl G. Rosberg, *Personal Rule in Black Africa, Prince, Autocrat, Prophet, Tyrant* (Berkeley: University of California Press, 1982), 220–223.

⁵⁸ Cranford Pratt, *The Critical Phase in Tanzania, 1945 - 68: Nyerere and the Emergency of a Socialist Strategy* (Oxford: Oxford University Press East African Branch, 1980), 259.

⁵⁹ Pratt, *The Critical Phase in Tanzania, 1945 - 68: Nyerere and the Emergency of a Socialist Strategy*, 260.

⁶⁰ Jeffrey Gettleman, "Disputed Vote Plunge Kenya Into Bloodshed," *The New York Times*, December 31, 2007, <http://www.nytimes.com/2007/12/31/world/africa/31kenya.html> (accessed December 19, 2010).

⁶¹ Mike Nizza, "All Eyes on Zimbabwe's Election Results," *The New York Times*, April 1, 2008, <http://thelede.blogs.nytimes.com/2008/04/01/all-eyes-on-zimbabwes-election-results/> (accessed December 19, 2010).

the sitting president, Laurent Gbagbo, refuses to hand over office to Alassane Quattara, despite confirmation Quattara winning the November 28, 2010 presidential election.⁶²

Nyerere also had to address a multi-ethnic and tribal society. In a country with more than 120 tribes, each with its own dialect and chiefdom, Nyerere's quest to build national unity and stability was very challenging. As Huntington observed:

Africa was saddled with an irrational political map upon decolonization, one that corresponded to neither geography or ethnicity, nor economic functionality. The international system supported that region's leader's decision to retain those boundaries even as decreasing transportation and communications costs made those boundaries more porous and the political units more susceptible to mutual destabilization.⁶³

After independence, Nyerere had to address the fundamental threat of instability and underpin security, a prerequisite for growth. Consequently, he abolished chiefdom, perceiving it as one of the major sources of instability. Simultaneously, he introduced Kiswahili, the national language and made it a government policy to post public officials away from their home areas. Furthermore, in a society with multiple beliefs, he constitutionally separated religion from state affairs. He maintained that the government did not need a single religion, but rather each individual citizen was free to worship his choice of religion while abiding with the law. In addition, Nyerere was cognizant of the land sensitivity; he made land a state property. Individuals could lease the land for a maximum of 99 years, subject to renewal, and the president had constitutional rights to revoke the lease for development purposes. Boarding schools became another platform for integration as students were mixed from various regions. Likewise, Nyerere introduced a compulsory one-year term of national service for all who attained higher education to enable interaction and eventually break tribal barriers and ethnic ideologies. From an African perspective, where the society is composed of several tribes with

⁶² Jennifer G. Cook, "The Election Crisis in Cote-d'Ivoire," *The Center for Strategic & International Studies (CSIS)*, <http://csis.org/publication/election-crisis-ivory-coast> (accessed December 19, 2010).

⁶³ Samuel P. Huntington, *Political Order in Changing Societies* (New Haven: Yale University Press, 1996), xvi–xvii.

different norms and beliefs, this seemed an appropriate strategy for Tanzania to employ to prevent what happened in neighboring countries specifically Burundi, DRC, Kenya, Rwanda, Somalia, Sudan, and Uganda.

Nyerere also declared war against ignorance, disease, and poverty. Regarding ignorance and diseases, he noted:

More than 80 years of colonial rule had left the country with little social development. The country then had approximately 200 tarmac road, and its “industrial sector” consisted only six factories-including one which employed 50 persons. About 85% of adults were illiterate in any language. The country for had only 2 African Engineers, 12 Doctors, and perhaps 30 Arts graduates.⁶⁴

He argued that ignorance and destitution were the nemesis of governance. With such a foundation, control becomes more precarious and prone to the political instability prevalent in Africa. Nyerere further noted:

But to say this is very different from saying that because Africa is poor, Africans do not deserve good governance. This continent is not distinguished for its good governance of the peoples of Africa. But without good governance, we cannot eradicate poverty; for no corrupt government is interested in the eradication of poverty; on the contrary, and as we have seen in many parts of Africa and elsewhere, widespread corruption in high places breed poverty.⁶⁵

So, what happened? The people called Nyerere “Baba wa Taifa,” (Father of the Tanzanian Nation), and peacefully handed power to his successor President Ali Hassan Mwinyi in 1985. Soon after, he retired from active politics to his home village of Butiama in the Musoma region and lived a simple rural life. Nyerere was a good teacher and a loving father for both Tanzanians and refugees from neighboring countries. He died

⁶⁴ George B. N. Ayittey, and Ludovick Shirima, “Failures of African Leaders on the Continent-Julius Nyerere: A Saint or Knave,” An FAF Publication in The Wall Street Journal (Europe), Oct 20, 2010:12, <http://www.freeafrica.org/articles/failedleadership/juliusnyere.html> (accessed December 20, 2010).

⁶⁵ Julius Nyerere, “Good Governance for Africa: 1998,” Transcribed by Ayanda Madyibi, <http://www.marxist.org/subject/africa/nyerere/1998/10/13.htm> (accessed December 20, 2010).

on October 14, 1999 at the age of 77. Based on his service to both the country and humanity, the Catholic Diocese of Musoma opened a cause for Nyerere to be elevated to sainthood. On his death, Wolfensohn commented:

For the men and women who have served the great cause of development in the world, one of the lights of our lives went out today. Mr. Julius Nyerere was one of the founding fathers of modern Africa. He was also one of the few world leaders whose high ideals, moral integrity, and personal modesty inspired people right around the globe. While world economists were debating the importance of capital output ratios, President Nyerere was saying that nothing was more important for people than being able to read and write and have access to clean water.⁶⁶

Not surprisingly, in October 2009, the United Nations General Assembly named Nyerere World Hero of Social Justice.⁶⁷ On the subject of governance, Nyerere, once said, “Good or bad, the first generation of our leaders is fast being replaced by the second or even the third; most of these are better-educated, relatively free from the mental hang-over of colonialism, and have had the opportunity to learn from the mistakes and the successes of their predecessors. With the help of work done at different fora, I am confident that African States, individually and in cooperation with one another, can step by step and in an ordered fashion, move towards Good Governance.”⁶⁸

Contrary to Nyerere’s outlook, Africa, particularly south of the Sahara, is still in social and political turmoil. Shah argues:

There have been over 9 million refugees and internally displaced people from conflicts in Africa. Hundreds and thousands of people have been slaughtered from a number of conflicts and civil wars. If this scale of destruction and fighting was in Europe, then people would be calling it World War III with the entire world rushing to report, provide aid, mediate and otherwise try to diffuse the situation.⁶⁹

⁶⁶ James D. Wolfensohn, “Statement on the Death of Julius Nyerere.” www.sahistory.org.za/pages/chronology/thisday/1999-10-14.htm (accessed December 20, 2010).

⁶⁷ S. Sydeham, and R. Thomas, “Julius Nyerere Online,” [www.kidcyber.com.au\[2010\]](http://www.kidcyber.com.au[2010]), (accessed December 20, 2010).

⁶⁸ Nyerere, “Good Governance for Africa: 1998.”

⁶⁹ Shah, “Conflicts in Africa-Introduction.”

He asserts that among the problems that blight Africa, dishonest leadership and poor governance are front and center, and colonialism is only a secondary cause. African boundaries did not follow the continent's anthropological and geographical setting. As a result, the unauthentic and often unclear national boundaries created still unsettled cultural and ethnic divides. The public sometimes takes the discussion further and references the antecedent effects of colonialism associated with slavery and the deculturing of African inhabitants during colonial rule. However, it is important to underscore that slavery has been in Africa from time immemorial. History shows that colonialism is not a strange experience in Africa or in other parts of the world. It has existed in Europe and the Middle East as well; Judea, the whole of North Africa, and a large part of Europe were once under the yoke of the Roman Empire.⁷⁰ Arguably, colonialism changed the African social structure, and its brief stay did not permit the construction of a new structure to go along with the world's modern development. Some may only consider the negative effects in Africa; however, perhaps it is possible to perceive colonialism as positive, because it introduced Africa to the contemporary world.

Border disputes are a legacy of poor governance. Mandel used statistical methods on 66 cases from 1945 to 1974 to confirm that the high rate of boundary disagreements that escalates to war usually involve only two neighboring countries, both of are underdeveloped, have parity in military strength, compete over clannish matters rather than resources, and belong to different alliances.⁷¹ According to Holsti, the above mirrors weak states and emphasizes that future wars will concentrate within particular settings. He argues that the phenomenon is a result of organizational weaknesses created by rulers as well as colonial inheritance and other facets pertaining to global financial arrangements. Subsequently, he classifies the globe into "zones of war, no-war zones and zones of peace," Africa is located in the first sector.⁷² Additionally, when addressing

⁷⁰ "History UK – History of England," *The History and Heritage Accommodation Guide*, Historic-UK.Com, <http://www.historic-uk.com/HistoryUK/England-History/RomanEngland.htm> (accessed March 17, 2011).

⁷¹ Mandel, Robert. "Roots of the Modern Interstate Border Dispute."

⁷² Kalevi J. Holsti, *The State, War, and the State of War* (Cambridge: Cambridge University Press, 1996), 104, 148.

insecurity Fukuyama asserts, “weak and failing states have arguably become the single most important problem for international order.”⁷³ Patrick defines weak and failing states as those countries that are very pathetic in governance and fall short in providing “physical security, legitimate political institutions, economic management, and social welfare-in effect, they possess legal but not empirical sovereignty.”⁷⁴ Insecurity and instability are an inherent part of such drawbacks, characterized by budget deficits requiring external support to bridge the gap and provide the aforementioned political goods.

Scholars ponder the issue of failed states in three dimensions. A number of researchers agree it is a problem of insecurity. Thus, leaders should aggressively seek and implement a way to visualize and find the underlying cause of the predicament. Others are doubtful about the foundation, scope, significance, and validity of the botched country thesis. They argue that it is not easy to impartially describe, categorize and examine the issue decisively. The third group of analysts discards these thoughts as a domineering undertone introduced in the international political arena by nations convinced of own cultural superiority and desirous of controlling others. Newman states:

In terms of how international order and threats to security are perceived and constructed - which is not necessarily the same as reality-failed states, in conjunction with the apparent decline of traditional inter-state threats, do represent a fundamental challenge to conventional thinking. This is emblematic of a transition to a post-Westphalian world, at least for certain audiences.⁷⁵

First, the subject of border dispute is challenging and symbolic. It requires a divergent study and unique analysis to arrive at pragmatic recommendations. Not surprisingly, the study demonstrates a very strong correlation between failed/weak states and those experiencing boundary disputes. Indeed, twenty-two of forty failed states and

⁷³ Francis Fukuyama, *State Building: Governance and World Order in the 21st Century* (Ithaca: Cornell University Press, 2004), 92.

⁷⁴ Stewart Patrick, “Weak States and Global Threats: Assessing Evidence of Spillovers,” Center for Global Development, <http://www.cgdev.org> (accessed June 30, 2010).

⁷⁵ Edward Newman, “Failed States and International Order: Constructing a Post-Westphalian World,” *Contemporary Security Policy*, Vol. 30, Issue 3, (December 2009): 421–443, <http://www.informaworld.com/smp/section?content=a917248885&fulltext=713240928> (accessed December 20, 2010).

twenty nine of forty weak states in the world respectively are from Africa. Furthermore, thirty of forty fragile countries are from Africa, and twenty-nine of the thirty fragile states are involved in boundary disputes dilemma.⁷⁶ Additionally, the CIA Factbook indicates the following six African States are free of border disputes: Cape Verde, Lesotho, Mali, Mozambique, Sao Tome and Principe, and Tunisia. Irrefutably, African. conflict environment is distressing; arguably, the quality of its leaders matters. Therefore, it is an indispensable duty for Africans to solve the quandary and break the vicious cycle. The matter boils down to governance and the role of leadership. Without a doubt, governance is critical for solving Africa's border disputes and security problems. After several generations, linking colonialism to ongoing conflicts is no longer acceptable.

D. THE MALAWI—TANZANIA BORDER CHALLENGE

Addressing delegates at 'The First Summit of the International Conference on the Great Lakes Region,' the Tanzanian President, Benjamin W. Mkapa, said that the setting in Africa has improved, and the continent was going through a positive transformation, though security was still delicate. Instability is still a threat to peace in the region; therefore, he urged leaders to take responsibility and establish a road map towards improving stability. Mkapa reiterated that, "We must now come to terms with the reality that, after an average of 40 years of independence, we cannot keep on blaming colonial powers for all our woes. We are independent now, and it is our duty as leaders to rectify the negative legacies of colonialism."⁷⁷

Indeed, border disputes still pose a real security threat in the region. Burundi and Rwanda quarrel over sections of border along the Akanyaru/Kanyaru and Kagera/Nyabarongo Rivers. Democratic Republic of Congo (DRC) and Uganda dispute Rukwanzi Island in Lake Albert and other areas of Semliki River.⁷⁸ Kenya and Uganda

⁷⁶ Newman, "Failed States and International Order: Constructing a Post-Westphalian World;" "International Disputes," *CIA, The World Factbook – Field Listing*.

⁷⁷ Benjamin William Mkapa, "Welcoming Statement by the President of the United Republic of Tanzania, His Excellency Benjamin William Mkapa, at the First Summit of the International Conference on the Great Lakes," Dar es Salaam, 19 November 2004, http://www.tanzania.go.tz/hotuba/hotuba/041119_Great_Lakes_Summit.htm (accessed December 23, 2010).

⁷⁸ "International Disputes," *CIA, The World Factbook – Field Listing*.

wrangle about Migingo Island in Lake Victoria.⁷⁹ Tanzania and Mozambique observe the 1936-37 agreement between Britain and Portugal along the Ruvuma River. It stipulates that, “The boundary should go along the Thalweg in the places where are no islands; and in case of disagreement consultation should be made with the Permanent Court of International Justice (CIJ).”⁸⁰ Another disputed border is the Songwe River that forms the boundary between Malawi and Tanzania and shifts from one country to another due to flooding during the rainy season.⁸¹ Malawi and Zambia have been arguing about their 600-kilometer border for decades. In May 2005, the two countries met to discuss the issue, and today the subject is still unresolved.⁸²

While the above situations are all serious dilemmas, Tanzania has no disagreement with Kenya and Uganda. The three neighboring countries harmoniously share Lake Victoria.⁸³ However, in 1978 the Ugandan Dictator Idi Amin claimed the Kagera Salient West of Lake Nyanza as part of Uganda.⁸⁴ The dictator invaded Tanzania in October 1978, and Tanzania waged war with Uganda from October 9, 1978 to June 3, 1979. This war cost Tanzania 373 soldiers, 1,500 civilians, and considerable financial loss and associated collateral damages.⁸⁵ The western boundary with the DRC, Burundi and Rwanda has been stable in this regard, while the southern border with Mozambique, Malawi and Zambia has remained insecure, especially the border with Malawi.

⁷⁹ Reuben Olita, “Kenya: Moi Speaks Out on Migingo Dispute,” *The New Vision*, May 18, 2009, <http://allafrica.com/stories/200905190177.html> (accessed December 23, 2010).

⁸⁰ Martinsson, “Changes in the Course of the River Komadugu Yobe During the 20th Century at the Border Between Niger and Nigeria.”

⁸¹ “Songwe River Sours Malawi, Tanzania Environment,” Malawi/Tanzania, *Afrol News*, 18 May, <http://www.afrol.com/articles/12447> (accessed December 23, 2010).

⁸² “Zambia Malawi in Border Talks,” *News24.com: Africa News*, May 17, 2005, <http://www.news24.com/Africa/News/Zambia-Malawi-in-border-talks-20050517> (accessed December 23, 2010).

⁸³ “International Boundary Study, No. 55 – September 1, 1965, Tanzania – Uganda Boundary (Country Codes: TZ-UG), *Department of State: United States of America*.”

⁸⁴ K. Kaggwa, “Fall of Idi Amin,” *Economic and Political Weekly* Vol. 14, No. 21 (May 26, 1979): 907–910, <http://courses.essex.ac.uk/gv/gv104/econweekly.pdf> (accessed June 24, 2010).

⁸⁵ Peter F. B. Nayenga, “Review: The Overthrowing of Idi Amin: An Analysis of the War,” *Africa Today*, Vol. 31, No. 3rd Qtr., (1984): 69 – 71, <http://www.jstor.org/stable/4186254.pdf> (accessed June 24, 2010).

Kaikobad strongly argues that, territoriality stands at the very heart of statehood; therefore, any least indication of encroachment or harm to a county's geographical area and privileges is painstakingly analyzed and such actions are fended off at all costs.⁸⁶ The sovereignty of a territory is a nation's most treasured identity and is equally defended as well. Consequently, Malawi's claim over the whole body of Lake Nyasa is the basis for tension between Malawi and Tanzania and may subsequently lead to undesired confrontations. The stance is deleterious for both countries, and their respective national interests are at stake. The International Boundary Study No. 37 also recognizes the drawbacks of the Malawi—Tanzania boundary, "Future economic activity in the area might require that additional attention be given to the boundary because of problems that may start over water rights and transportation needs. Equally, a detailed delimitation of the shore boundary of Lake Nyasa might be necessary because of the large fluctuations of the water levels of the lake."⁸⁷ Yet, the International Law recognizes, "The sovereignty of a state extends to its recognized land boundaries and to the border of air space above them. Sovereignty over bodies of water is regulated by four separate 1958 conventions."⁸⁸ These conventions call for a bilateral treaty to safeguard the riparian rights for neighboring countries.

Regarding lakes, Emerson articulates a number of privileges and regulations for landowner:

rights to fish, to harvest ice, to build docks, to anchor booms, to build mills, to land boats and various others. Moreover, the riparian proprietor owns the bed and the right of the water resting thereon and should the lake lie between two states or nations the boundary line between them would be the centre line of the lake, and each would have title to such centre line.⁸⁹

⁸⁶ Kaiyan Homi Kaikobad, *Interpretation and Revision of International Boundary Decisions* (Cambridge: Cambridge University Press, 2007), 3.

⁸⁷ International Boundary Study No. 37 - October 26, 1964, Malawi – Tanzania (Tanganyika and Zanzibar) Boundary (Country Codes MI: TZ)," *Department of State - United States of America*.

⁸⁸ "International Law - MARITIME SPACES AND BOUNDARIES," *Encyclopedia Britannica*, <http://www.britannica.com/EBchecked/topic/291011/int-law/233511/Maritime-spaces-and-boundaries> (accessed June 1, 2010).

⁸⁹ Frank Emerson Clark, *A Treatise on the Law of Surveying and Boundaries* (Indianapolis: The Bobbs – Merrill Company, 1922), 136, 139, 140.

Furthermore, Strong states, “Rights associated with water that is not flowing are called littoral. Generally land beneath non-sovereign lakes are owned by the surrounding upland owners. When all the deeds call to the lake, each owner has title to a centre point.”⁹⁰ In addition, riparian proprietors should jointly address problems such as sediment loading and loss of biodiversity. Failure to understand all of this has resulted in the failure to manage Lake Nyassa’s resources and the deprivation of rights for both Malawian and Tanzanian citizens residing along lake.

Julius Nyerere, the first Tanganyika Prime Minister recognized the riparian rights of the country and prepared a policy document for implementation after independence. The Secretary—General of the United Nations was informed:

As regards bilateral treaties validly concluded by the United Kingdom on behalf of the territory of Tanganyika, or validly applied or extended by the former to the territory latter, the Government of Tanganyika is willing to continue to apply within the territory, on a basis of reciprocity, the terms of all such treaties for a period of 2 years from the date of independence [i.e. until 8 December 1963] unless abrogated or modified by mutual consent. At the expiry of that period, the government of Tanganyika will regard such of these treaties, which could not by the application of the customary international law be regarded as otherwise surviving, as having terminated.⁹¹

As a result, Tanzania did recognize the ambiguous treaties when Malawi attained its independence on 7 July 1964.

E. THE CONSEQUENCES OF THE BORDER DISPUTE BETWEEN MALAWI AND TANZANIA

Three countries, Malawi, Mozambique, and Tanzania share Lake Nyasa and its natural resources, yet those assets are dwindling at an alarming rate. A study by Nindi on management and the level of quality of life of peoples residing in the locale confirmed the negative trend as depicted below.⁹²

⁹⁰ Thomas Strong, “Riparian Rights,” PDH Course L 124, <http://www.PDHonline.org> (accessed July 25, 2010).

⁹¹ Mayall, “The Malawi-Tanzania Boundary Dispute.”

⁹² Nindi, “Changing Livelihoods and Environment Along Lake Nyasa, Tanzania.”

Table 1. Changing Water Levels in Lake Nyasa and Land Use Changes in the Mount Livingstone Catchment Area (%) (From: Nindi, 2007).

Periods	Deep water (Lake Nyasa)	Shallow water (Lake Nyasa)	Forest	Shrubs	Grassland/ scattered trees	Cultivated fields
1884	41.13	2.83	16.96	11.47	13.82	3.15
1994	23.54	20.39	9.84	16.63	14.31	4.31
2000	24.09	20.11	8.16	14.92	15.29	6.73

Declining fish levels have compelled natives to consume inferior types of fish. Moreover, to catch sufficient fish, natives resort to bad or unlawful fishing practices and use prohibited fishing nets. In addition, farming practices around the lake significantly affect water catchment areas and the lake's ecosystem. These problems increase the chance of clashes over resources in the future.⁹³ Klare describes wars over resources:

Many key resources or deposits of these materials are shared by two or more nations, or lie in contested border areas or offshore economic zones. Normally... as these supplies became exhausted governments will naturally seek to maximize their access to the contested and offshore deposits, thereby producing an increased risk of conflict with neighboring states as in the case of many countries in Africa and the Middle East.⁹⁴

Crocker confirms that insufficient affluence worsens the plight of weak nations; that is, clashes amid states increase with a fast population growth that requires greater resources and depletes materials.⁹⁵

Payan notes that recently the U.S. and Mexico border situation improved, but still lacks two basic ingredients: the political will on both sides to tackle the problem and a lack of vision in executive branches to resolve the problem at the border. He argues that

⁹³ Michael T. Klare, "The New Geography of Conflict," *Foreign Affairs*; May/June 2001: 49–61.

⁹⁴ Michael T. Klare, *Resources Wars: The New landscape of Global Conflict* (New York: Henry Holt and Company LLC, 2001), 21.

⁹⁵ Jack S. Levy, "International Source of Interstate and Intrastate War," in *Leashing the Dogs of War: Conflict Management in a Divided World*, ed. Chester A. Crocker, Fen Osler Hampson and Pamela R. Aall (Washington: Endowment of the United States Institute of Peace, 2007), 31.

the affluence of the two neighboring countries is mutually dependent and failure to comprehend this is problematic.⁹⁶ Spector confirms the above assertions:

Transboundary issues hold the potential for unleashing interstate conflict and regional instability, but if conditions are ripe and the political willingness and technological capacity is available, they also offer opportunity for conflict prevention or mitigation through cooperative mechanism such as negotiation.⁹⁷

Axelrod indicates the way forward by illustrating the power of collaboration to foster world safety among humankind. He argues that security is the life stream for sustainable global development. Security is enabled by a requisite discourse in geopolitics and international relations. Furthermore, security can only be achieved through capable leadership imbued with the necessary charisma to build strong governments coupled with the will to establish sound and binding bilateral and multilateral relations between and among nations.⁹⁸ To reinforce this idea, Ghani and Iyer note that clashes hold back local and global development, and their mitigation is the only qualification for sustainable growth strategies.⁹⁹ Consequently, the sooner Malawi and Tanzania resolve the impasse over sharing resources the better.

F CONFLICT RESOLUTION PARADIGM

1. Leadership Responsibility and Contribution

Is the current leadership effective in mitigating the border wrangle between Malawi and Tanzania? The previous discussion seems to illustrate some weaknesses in decision-making and an aversion to act responsibly. Both administrations have not been sufficiently effective in resolving the issue; arguably, leadership should take a more

⁹⁶ Tony Payan, *The Three U.S. – Mexico Border Wars: Drugs, Immigration, and Homeland Security* (Westport, CT, London: Praeger Security International, 2006), 4.

⁹⁷ Bertram I. Spector, "Transboundary Environmental Disputes," Center for Negotiations Analysis, Wilson Centre, <http://www.wilsoncenter.org/subsites/ccpdc/zart/ch2.htm> (accessed August 06, 2010).

⁹⁸ Robert Axelrod, *The Evolution of Cooperation* (USA: Basic Books, 1984), 3–5.

⁹⁹ Ejaz Ghani and Lakshmi Iyer, "Conflict and Development: Lessons From South East Asia," *VOX Research*, <http://www.voxeu.org/index.php?q=node/4794> (accessed July 22, 2010).

proactive stance and devise a plausible and effective strategy to mitigate the dispute. The problem of ineffective leadership has prevailed for more than four decades.

Similarly, the bid to end border disputes by creating a single united African state has not progressed. This noble dream of a united Africa has been an objective for African leaders since the early 1960s; but it has not materialized:

For decades the dream of an African continent united under one leadership, one government with a prosperous people with shared values, interest, and common citizenship and with a common destiny and taking their place in the world community of nations has escaped the leadership in Africa.¹⁰⁰

Notwithstanding these setbacks, Senegalese President Abdoulaye Wade is still optimistic about a unified Africa and dared to announce, “The United States of Africa will be proclaimed in 2017, to allow for the time needed to work out the different African institutions.”¹⁰¹ To deal with its political problems, the continent needs not only capable and dedicated leaders, but also intellectual leaders. From the onset, the African Union (AU) proposal has never received requisite attention from the majority of its heads of state. Indeed, for the same reasons, the celebrated East African Cooperation (EAC) collapsed in 1977. An interview with Julius Nyerere revealed:

Kwame Nkrumah and I were committed to the idea of unity. African leaders and heads of state did not take Kwame seriously. However, I did. I did not believe in these small little nations. Still today I do not believe in them. I tell our people to look at the European Union, at these people who ruled us who are now uniting. Kwame and I met in 1963 and discussed African Unity.¹⁰²

Contrary to Kwame’s thoughts, interstate conflicts and border disputes are still commonplace in Africa. While assisting peace negotiation in Burundi in 1999, Nyerere was troubled by the increasing violent behavior in the Great Lakes Region of Africa. He

¹⁰⁰ Lord Aitkins Adusei, “African Union Day: Calling on Africa to Unite,” *AFRIK-NEWS*, <http://en.afrik.com/article17706.html> (accessed June 18, 2010).

¹⁰¹ Adusei, “African Union Day: Calling on Africa to Unite.”

¹⁰² Ikaweba Bunting, “The Heart of Africa, Interview with Julius Nyerere on Anti-Colonialism,” *New Internationalist Magazine*, issue 309, January-February 1999, <http://www.hartford-hwp.com/archives/30/049.html> (accessed June 25, 2010).

felt humiliated after announcing proudly the coming of a united Africa, capable of creating a tough and sound economic block in the world and sustaining itself in the competitive global market.

Researches and leaders continue to look for means to deliver Africa from the yoke of hopelessness; yet, these changes require strong and creative leadership from willing and agile leaders who are ready to work jointly for a sustainable and equitable future. Undeniably, stable security is the prerequisite for advancement of nations. However, security is a broad topic that encompasses internal and external factors. Therefore, a holistic approach to conflict resolution is essential. Leadership and political will are also essential to creating security. Collier talks about ‘bad, good, and great leaders,’ maintaining that, leadership matters in both, human growth and underdevelopment. He asserts that bad leaders “put the failed in failed states.”¹⁰³ Bad leaders breed instability and insecurity. Good leaders bring freedom from tyranny. They practice what they preach, showing the way ahead. Great leaders bridge societies from poverty to prosperity; they are the gateway to liberty.

Simply stated, political will is the way forward. There is a call for loyal, responsible, dedicated, and humble leaders with human hearts, who will accept the heavy responsibilities and challenges of leading nations with confidence and courage. The way forward is headship with a strong desire to serve the people, endow creation and implement an appropriate system, which will check the government and instill responsibility in fellow leaders.

¹⁰³ Paul Collier, “Bad Guys-They Put Failed in Failed States,” *Foreign Policy, Global Politics, Economies, and Ideas*, (July/August, 2010): 88.

2. Political Will

Political will “is a determination to implement a policy decision (unaccountable or accountable) even if it is difficult.”¹⁰⁴ Reputedly it is the most powerful tool to bring about positive changes in a society. According to Stojanow it is the lifeblood for civilizations:

Political Will is the highest manifestation of the all-inclusive and Omnipotent willing itself Rational Will; it is the universal power that is in everything and there is no social human activity in which Political Will does not rule itself through itself. Developing itself continually, it develops the ethical and civic virtues as well as the moral values and political culture of society in each particular epoch.¹⁰⁵

Authority is another imperative; without it anarchy prevails. The World Bank (WB) account on governance for 213 countries from 1996 to 2009 furnishes six measurements for good governance as follows, ‘voice and accountability, political stability and absence of violence, government effectiveness, regulatory quality, rule of law, and control of corruption.’¹⁰⁶ Most important, political will enables well-articulated policies to be the requisite vehicle for socioeconomic advancement. Undeniably, it is an instrument for world development and remains the most dominant factor in shaping a nation’s destiny. In fact, the UNDP identified four essential factors for achieving the ‘Millennium Developmental Goals (MDGs)’. Among them are vital characteristic for shaping a country’s development, “National ownership: Political will and partnership.”¹⁰⁷ Again, Charney’s contribution is critical in view of the current world developmental. He qualifies, “Political will is the ghost in the machine of politics, the

¹⁰⁴ Political Will, Longman Dictionary of Contemporary English, <http://www.Idoceonline.com/dictionary/will2> (accessed July 30, 2010).

¹⁰⁵ Janko Stojanow, *On the absolute Rational Will*, An Online Book, <http://www.jgora.dialog.net.pl/OnTheAbsoluteRationalWill/Politovolia.htm> (accessed July 30, 2010).

¹⁰⁶ Daniel Kaufman, “World Governance indicators (WGI),” Brookings Institution, World Bank Development Economics Research Group, <http://info.worldbank.org/governance/wgi/index.asp> (accessed January 2, 2011).

¹⁰⁷ “Beyond the Midpoint: Achieving the Millennium Development Goals,” News Room, United Nations Development Program, <http://content.undp.org/go/newsroom/publications/poverty-reduction/poverty-website/mdgs/beyond-the-midpoint.en> (accessed January 26, 2011).

force that generates political action. It can be measured through the polls by measuring three factors: opinion plus intensity plus salience.”¹⁰⁸ Amicable conflict resolution is created from sound policies engendered by governance. Africa has great leaders who can harmoniously exploit the great potential of the continent; the key is to boldly accept the challenge.

¹⁰⁸ Craig Charney, “What is Political Will? How is it Measured?” http://www.charneyresearch.com/pdf/09May5_Charney_Newsletter_Political_Will.pdf (accessed July 30, 2010).

III. GAME THEORY IN DISPUTE RESOLUTION

It is a doom of men that they fail to see a storm on the horizon when the sea is calm.

Machiavelli, The Prince

A. INTRODUCTION

Game theory covers a broad spectrum, and it is a valuable tool for solving a variety of strategic problems. Borel introduced the subject in 1921. Von Neumann, together with Morgenstern, developed the mathematics to solve economics problems.¹⁰⁹ Advancement in mathematics furthered the theory beyond economics, and today it is used to solve a wide range of puzzles in sociology, psychology, politics, and war.¹¹⁰ According to Dixit and Nalebuff, “Game Theory is the science of strategic thinking” whereby opponents have the choice to disagree and end in conflict or cooperate and emerge with a better solution.¹¹¹ It is an important tool in many types of strategic decision-making, including the resolution of border disputes.

Nyasaland (current day Malawi) became a British protectorate in 1891. In 1964, the country gained independence, and President Kamuzu Banda changed the country’s name to Malawi.¹¹² He also renamed Lake Nyasa, the root of the dispute between Malawi and Tanzania, Lake Malawi and simultaneously claimed the whole lake was Malawian. Despite the explosive nature of most border conflicts, this case is relatively

¹⁰⁹ J. C. C. McKinsey, “Some Notions and Problems of Game Theory,” <http://www.ams.org/journals/bull/1952-58-06/S0002-9904-1952-09648-8.pdf> (accessed January 22, 2011).

¹¹⁰ A. J. Jones, *Game Theory: Mathematical Models of Conflict* (Chichester: Ellis Harwood Limited, 1980), 15.

¹¹¹ Avinash K. Dixit and Barry J. Nalebuff, *Thinking Strategically: The Competitive Edge in Business, Politics, and Everyday Life* (New York: W.W. Norton and Company, 1991), ix–2.

¹¹² “Geography and Map of Malawi,” About.com, <http://geography.about.com/library/cia/blcmalawi.htm> (accessed January 22, 2011).

quiescent. There has been no open conflict, but it remains a point of dispute.¹¹³ For the last 47 years, neither country has made a considerable effort to resolve the problem. On the one hand, unfriendly statements by Dr. Banda could have resulted in war. This would have been a zero-sum game,¹¹⁴ where one player's gains are another player's loss. However, a zero-sum solution is neither desirable nor likely given the importance of the lake to both countries and the surrounding tribes. For such reasons, open confrontation between Malawi and Tanzania is not a good option for resolving the border conflict.

Tanzanian Members of Parliament have incessantly asked the Tanzanian government to resolve the border dispute with Malawi; however, Tanzania's consultations with Malawi have not been successful.¹¹⁵ Recently Tanzanian Prime Minister, Mizengo Peter Pinda, attempted to seek African Union (AU) arbitration. This is a 'partial-sum game' solution, whereby both players can gain something. According to the Premier, "For the Government of Tanzania, the question of development is more important than a border dispute."¹¹⁶ Yet border conflicts impact heavily on development, which requires cooperation to preserve shared resources, such as the lake and its wildlife. Adept leadership with strong political will should readily seek cooperation between the two countries. Communication is the prerequisite for dynamic negotiations that should lead to cooperation represented by the Nash arbitration. Lack of cooperation, on the other hand, may result in failure. Kaikobad states, "an uncooperative approach would tend to defeat the very object and purpose of international adjudication and arbitration as

¹¹³ "Government Statistics – Transnational Issues, Disputes, International (most recent) by country," NationMaster.COM, http://www.nationmaster.com/graph/gov_tra_iss_dis_int-government-transnational-issues-disputes-international (accessed January 22, 2011).

¹¹⁴ Shore, *Blunder: Why Smart People make Bad Decisions*, 83.

¹¹⁵ Rodgers Luhwago, "MPs Want Lake Nyasa Border Dispute Resolved," *The Guardian*, February 10, 2010, <http://www.ippmedia.com/frontend/index.php?l=13378> (January 13, 2011); Sosthenes Mwita, "Government Clarifies on Tanzania – Malawi Border," *Kilimanjaro Forum*, <http://www.kforumonline.com/viewtopic.php?t=712&sid=6ff7f94b3f06010d9542913ba89b2ac2> (January 13, 2011).

¹¹⁶ Levina Kato, "Lake Nyasa Dispute Resolvable," From the Parliament, *Daily News Tanzania*, February 4, 2010, <http://www.dailynews.co.tz/bunge/?n=7245> (accessed January 22, 2011).

perceived by litigating States: the dispute will continue to fester and would jeopardize the relations between the disputing parties.”¹¹⁷ Hopefully negotiations and cooperation will occur before the dispute over the lake flares up.

B. PARTIAL–CONFLICT GAMES IN BORDER DISPUTES RESOLUTION

Player’s preferences are diametrically opposed in total-conflict games; however, this is not the case in partial–conflict games. “Games of partial conflict are variable–sum games, in which the sum of payoffs to the players at the different outcomes varies.”¹¹⁸ ‘Game Theory’ gives insight into the payoff of cooperation in real life problems. In particular, Game Theory can show how Malawi and Tanzania can share Lake Nyasa’s resources. Both players anticipate mutual gain, but this requires they cooperate and engage in sound communication. The main objective is to attain a peaceful environment that will enable growth in the region.

1. The Game

The decision made by Malawi and Tanzania about sharing Lake Nyasa’s resources is the basis of the game. Currently, Malawi claims the whole body of water, while Tanzania wishes to share these resources. Therefore, the strategic options available for each country are considered together with the assignments of respective payoffs. The game assumes that both countries will cooperate and each desires the best possible solution. The basis for assigning payoffs for each country is influenced by the possible strategic options available for each player as shown in Tables 2 and 3.

¹¹⁷ Kaikobad, *Interpretations and Revision of International Boundary Decisions*, 339.

¹¹⁸ Consortium for Mathematics and its Application (COMAP), *For All Practical Purposes: Mathematical Literacy in Today’s World*, 6th ed. (New York: W.H. Freeman and Company, 2003), 561.

Table 2. Options available for Tanzania Ranked From Best To Worst (4 to 1)

Tanzania's Strategic Options	
4 – Best –	Tanzania does nothing; Malawi withdraws claim
3 – Next Best –	Tanzania asks mutual gains; Malawi withdraws claim
2 – Least worst –	Tanzania asks mutual gains; Malawi maintains claim
1 – Worst –	Tanzania does nothing; Malawi maintains claim

Table 3. Options available for Malawi Ranked from Best to Worst (4 to 1)

Malawi's Strategic Options	
4 – Best –	Malawi maintains claim; Tanzania does nothing
3 – Next Best –	Malawi maintains claim; Tanzania asks mutual gains
2 – Least worst –	Malawi withdraw claim; Tanzania asks mutual gains
1 – Worst –	Malawi withdraw claim; Tanzania does nothing

From Table 3 the resulting game matrix is as follows:

		Malawi	
		Withdraw Claim C	Maintain Claim D
Tanzania	Do Nothing A	(4, 1)	(1, 4)
	Ask Mutual Gains B	(3, 2)	(2, 3)

Figure 3. The game: Tanzania Vs. Malawi

Eventually the possible strategic moves are as follows:

- A: Tanzania does nothing by refraining from a hostile posture that may trigger enmity with Malawi.
- B: Tanzania asks that the boundary between the two countries be located at mid-point line in the lake. The riparian states have equal rights to share Lake Nyasa's resources.
- C: Malawi withdraws the claim to the entirety of the lake. This produces a friendly posture that may lead to peaceful settlement of the dispute.
- D: Malawi maintains the current claim, which is an unfriendly posture that may set off hostility.

2. Noncooperative Solution and Nash Equilibrium

Once the payoffs for each player have been established, communication between the players is not allowed in order to show the effects of self interest moves. Each player tries to maximize its payoffs and the results show the effects of poor cooperation between the players. The idea of equilibrium is described by using the movement diagram Figure 4.

		Malawi		
		Withdraw Claim	Maintain Claim	
		C	D	
Tanzania	Do Nothing A	(4, 1)	(1, 4)	1
	Ask Mutual Gains B	(3, 2)	(2, 3)	2
		1	3	

Figure 4. Movement Diagram: Tanzania Vs. Malawi

From the above movement diagram:

If **A** then **D** results in a **(1, 4)**, Malawi chooses to maximize its outcome, and for the same reason if **B** then **D**, and the result is **(2, 3)**.

If **C** then **A**; results in a **(4, 1)**; Tanzania chooses to maximize its outcome, and for the same reason if **D** then **B**, and the result is **(2, 3)**.

The game produces a dominant strategy **D** for Malawi, while Tanzania is disadvantaged. Since players selfishly attempt to maximize their outcomes, via ‘maximin theorem,’ the outcome is **BD** that is **(2, 3)**.¹¹⁹ Additionally, the incoming arrow at **BD** according to Straffin, identifies ‘the equilibrium’ which in a non-zero sum games is called the ‘Nash Equilibrium.’¹²⁰ Since there is no communication, the game ends with an outcome of **(2, 3)**; Malawi maintains its claim and tension between the two countries continues. This is not the desired solution for both countries, because there is the possibility of improving their respective outcomes.

3. Strategic Moves With Communication

In this game, communication makes the two countries’ moves known, and cooperation is possible. After opening communication between the Malawi government and Tanzania government, let us look at *first moves*. Most likely Tanzania will move first, because it wants Malawi to change its policies:

If Tanzania does **A**, and Malawi does **D**, the outcome is **(1, 4)**. If Tanzania does **B**, and Malawi does **D**, the outcome is **(2, 3)**. Tanzania would choose outcome **(2, 3)** because it is the best one from its perspective.

But suppose Malawi moves first. If Malawi does **C**, and Tanzania does **A**, the implied outcome is **(4, 1)**. If Malawi does **D**, and Tanzania does **B**, the implied outcome is **(2, 3)**. From a Malawi perspective, the choice would definitely be **(2, 3)**. If Tanzania moved first, it would result in the outcome of **(2, 3)**; if Malawi moved first it would also

¹¹⁹ COMAP, For All Practical Purposes: Mathematical Literacy in Today’s World, 565.

¹²⁰ Philip D. Straffin, *Game Theory and Strategy* (Washington, DC: Mathematical Association of America Inc., 1993), 66.

result in the outcome of (2, 3). In other words, the first move gives neither player an advantage, nor have they improved the outcome as to the earlier likely outcome without communication.

What about *threat* and *promises*?¹²¹ Looking at threat, Tanzania wants Malawi to play **C**, and issues a threat on **D**. If Malawi plays **D**, Tanzania hurts itself by doing what is logically wrong by playing **A** with an outcome of (1, 4). The move does not hurt Malawi, so it is not a threat and does not eliminate the desired outcome. In other words, Tanzania cannot force Malawi to choose **C** with threats. Suppose Tanzania offers a promise to Malawi, if they play **C**. If Malawi plays **C**, Tanzania hurts itself by playing **B** instead of the logical **A** with an outcome of (3, 2). The promise hurts Tanzania and helps Malawi. In addition, the promise will not work on its own, because Malawi can increase its utility by playing strategy **D**. Thus, Tanzania cannot convince Malawi to choose **C** with just a promise. Still, Tanzania is not in a good position; its first move, provoked by either threat or promise will not prove successful. This situation may reflect the explosive nature embedded in border disputes, exacerbated by the desire to maintain sovereignty. Tanzania has not improved its outcomes; Malawi's standoff and the threat of war prevail. The countries have yet to find a way to cooperate and provide for the essential needs of the citizens residing along Lake Nyasa. Moreover, the threat posed by environmental degradation in this security environment continues.

4. Prudential Security

Though communication occurred in the previous game, it is apparent that both countries continued to play selfishly. Neither Tanzania nor Malawi can unilaterally depart from their conservative strategy. Also Tanzania's threats and promises do not work to improve outcomes. The way forward is to examine each player's security level. In a non-zero sum game, another name for optimal strategy is the 'prudential strategy,' and the value of the player's game is its 'security level.'¹²² The case of hostility requires the examination of each player's game. Tanzania will seek to maximize its outcome,

¹²¹ Straffin, *Game Theory and Strategy*, 87–88.

¹²² *Ibid.*, 69.

while Malawi seeks to minimize it. Malawi will seek to maximize its outcome, while Tanzania seeks to minimize it. The results of both moves will determine each player's security, and subsequent analysis will suggest further actions possible by the two countries.

Tanzania's security level and prudential strategy: Tanzania payoffs-Tanzania maximizes while Malawi minimizes

		Malawi		
		C	D	
Tanzania	A	4	1	1
	B	3	2	2
		4	2	
			Minimax	
				Maximin

Figure 5. Tanzania's Security Level

Maximin value equals to minimax value = 2 implies there is a saddle point at **BD**. In a pure strategies game, Tanzania's security level is **2**, and its prudential strategy is **B**.

Malawi's security level and prudential strategy: Malawi's payoffs-Malawi maximizes while Tanzania minimizes

		Malawi		
		C	D	
Tanzania	A	1	4	4
	B	2	3	3
		1	3	
		Maximin		
		Minimax		

Figure 6. Malawi's Security Level

Maximin equals to minimax = 3 implies there is a saddle point at **BD**. In a pure strategies game, Malawi's security level is **3**, and its prudential strategy is **D**. Figures 5 and 6 show that the security levels for Tanzania and Malawi are **2** and **3** respectively. The graphical snapshot solution is shown in Figure 7

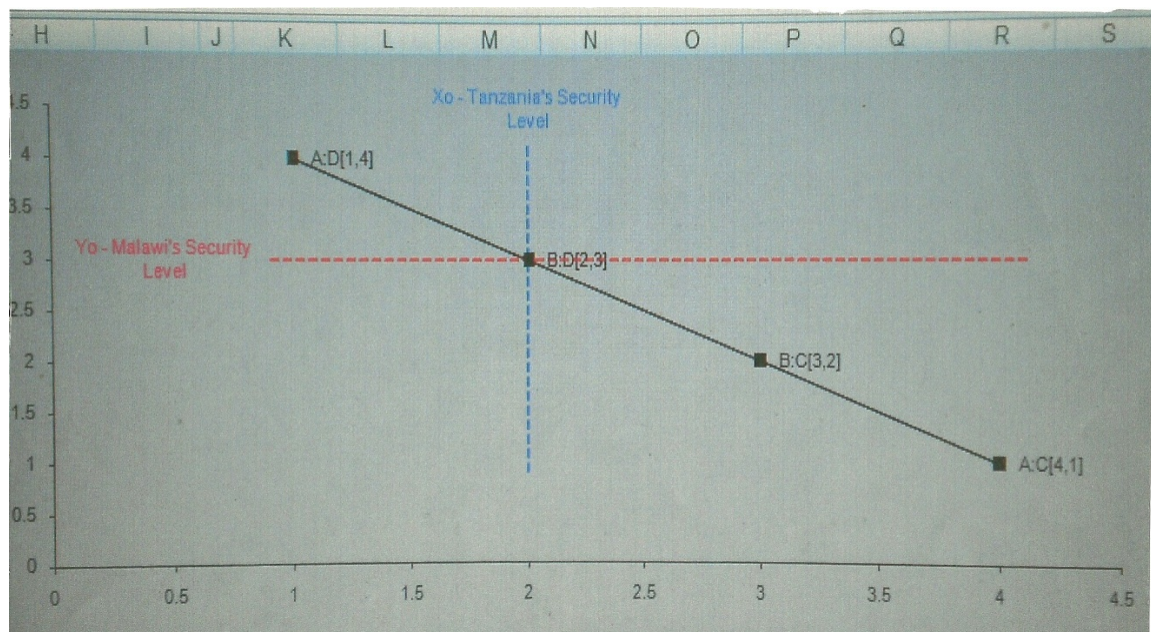


Figure 7. The Malawi and Tanzania Ordinal Security Levels Snapshot

Analysis reveals that the game is a ‘**Zero-sum game**,’ therefore, interval scaling should be utilized to devise a partial-conflict game. Additionally, the ‘prudential strategies’ game shows that Tanzania should always play strategy **B**, while Malawi should always play strategy **D**, resulting in a **(2, 3)** outcome. The problem is not resolved and a standoff prevails. Tanzania is at a disadvantage and should reconsider its strategies.

5. Interval Scaling by Utilizing Cardinal Values

To depict the ongoing game more accurately, cardinal values will replace ordinal values. Straffin states, “A scale on which not only the order of numbers, but also the ratios of differences of the numbers is meaningful is called an *interval scale*.”¹²³ The game is now based on a 10-point variable, with 10 being the best and 1 being the worst. Tanzania’s proposed best cardinal utility is 10, followed by next best 6, least best is 3, and worst is 1. For Malawi, the best cardinal utility is 10, next best is 4, least best is 2, and worst is 1. The new game is depicted in Figure 8.

		Malawi	
		Withdraw Claim C	Maintain Claim D
Tanzania	Do Nothing A	(10, 1)	(1, 10)
	Ask Mutual Gains B	(6, 2)	(3, 4)

Figure 8. The Game With Cardinal Values: Tanzania Vs. Malawi

¹²³ Straffin, Game Theory and Strategy, 50.

Strategic moves with cardinal values show similarities in threats; promises and players' payoffs are also consistent with the ordinal payoffs. The Nash Equilibrium is still at **BD** and the outcome is **(3, 4)** for Tanzania and Malawi respectively. However, further analysis shows that the game has two important facets require more thought. First, the threat and promise aspects may lead to two possible solutions. On the one hand, at equilibrium **BD**, neither Tanzania nor Malawi can unilaterally change its strategy to get a better payoff. Each player has two options, defection or cooperation.¹²⁴ On the other hand, both players may use the promises opening available to cooperate until they achieve mutual benefits. Axelrod underpins the importance of cooperation, together with good communication or trust, in the absence of which uncertainty prevails.¹²⁵ Second, cardinal rather than ordinal values now enable plotting the players' payoffs polygon and thus work out the 'Nash Arbitration.' A graphical solution of Malawi and Tanzania security levels for the cardinal values is shown in Figure 9. Nevertheless, the border dispute problem will not be resolved if Tanzania does nothing and Malawi continues with its current stance. This state of affairs has prevailed for about five decades. This indicates a refusal to cooperate; therefore, there can be no agreement even if there is communication between the players.¹²⁶ The dispute between the two countries indicates a sign of insufficient leadership and political will. This situation calls for the inducement of cooperation between Malawi and Tanzania.

¹²⁴ Sandra H. Savage, *Instructors Guide to Accompany: For All Practical Purposes: Introduction to Contemporary Mathematics* (New York: W.H. Freeman and Company, 1991), 140.

¹²⁵ Axelrod, *The Evolution of Cooperation*, 3–5.

¹²⁶ COMAP, *For All Practical Purposes: Mathematical Literacy in Today's World*, 562.

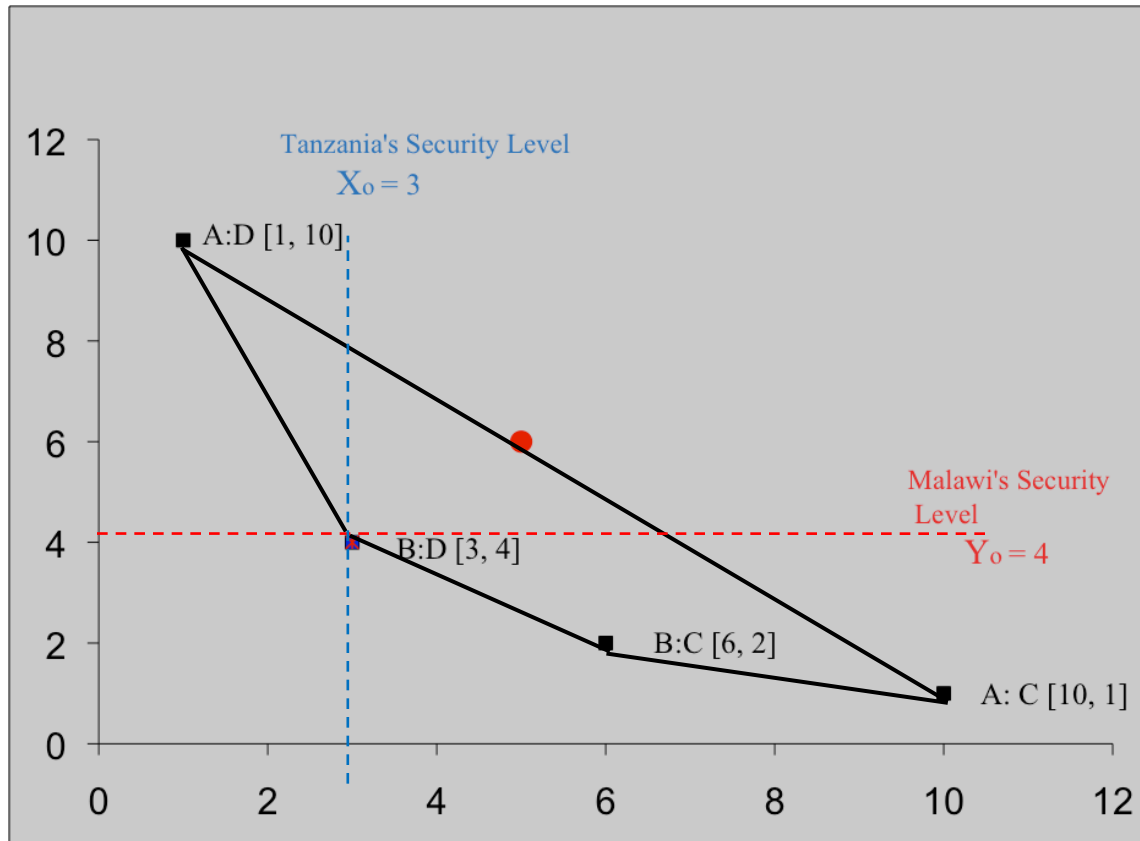


Figure 9. The Malawi and Tanzania Cardinal Security Levels

Consequently, the importance of leadership and accountability, as well as the political will to resolve the border dispute between Malawi and Tanzania, is becoming clear. Leaders from both countries should agree to resolve the border dispute to achieve a win-win outcome.

6. Cooperative Solution-Nash Arbitration Scheme

The most viable solution to border dispute between Malawi and Tanzania is cooperation. In other words, formal de-escalation of the border dispute is achievable through agreement between the parties. Indeed, the United Nations (UN) Charter “stipulates directly or indirectly that changes of inter-state boundaries are accepted only

through peaceful means.”¹²⁷ The next game assumes that the two countries have decided to cooperate; they have agreed to meet and negotiate on their own or opt for an unbiased intermediary with the intention of improving their respective payoffs. Von Neumann and Morgenstern (1944) argued that a pragmatic adjudicated result must be ‘Pareto Optimal’ and also must be above the security level for both players to succeed. Therefore, according to Pareto, the desired solution ought not to be **(3, 4)**, since it is not Pareto optimal (both sides can improve without hurting the other player). They should seek better outcomes (along the line of **AD-AC**, which is the Pareto optimal boundary) that will also reflect improved security and stability once the agreement between the two countries is implemented.¹²⁸

a. Nash Arbitration Graphical Solution

Consider the following game:

		Malawi	
		C	D
Tanzania	A	(10, 1)	(1, 10)
	B	(6, 2)	(3, 4)

Figure 10. Malawi vs. Tanzania: Graphical Solution Payoffs

The “Status Quo (SQ) point is a pair of payoffs which the players will receive if they cannot agree to cooperate.”¹²⁹ At this point, neither player can improve

¹²⁷ Kjell-Ake Nordquist, “Chapter 2: Boundary Conflicts and Preventive Diplomacy,” <http://www.wilsoncenter.org/subsites/ccpdc/pubs/zart/ch2htrm> (accessed February 10, 2011).

¹²⁸ Straffin, *Game Theory and Strategy*, 67, 103.

¹²⁹ Erin Pearse, “Math 121 – Game Theory Review,” <http://math.ou.ed/-epearse/resources/Math121-Game-Theory/121review.pdf> (accessed February 10, 2011).

unilaterally; that is, during hostility the players have attacked each other and are trapped at the SQ point. In some games, the SQ point and the player's security level are the same as they are in this one. However, the point **(3, 4)** reflects poor payoffs caused by the legacy of selfish moves and lack of cooperation. The respective player payoffs are plotted to get the 'payoff polygon' as shown in Figure 11, and the Nash Point (NP) is obtained through the following steps:

(1) The SQ is at **(3, 4)**.

(2) Establish the Nash triangle **EF, SQ (BD)**, and **GH**.

(3) Graphically, **NP** is located along the 'negotiating set,' which is a dashed line forming part of the 'Pareto optimal line' between points **EF** and **GH**. The **NP** for this particular game is **(5, 6)**. The result is above the security level obtained by both countries. It can be observed from Figure 11 illustrates that Malawi's outcome has improved from **4** to **6**, while Tanzania's has gone from **3** to **5**. The result indicates both countries can benefit mutually.

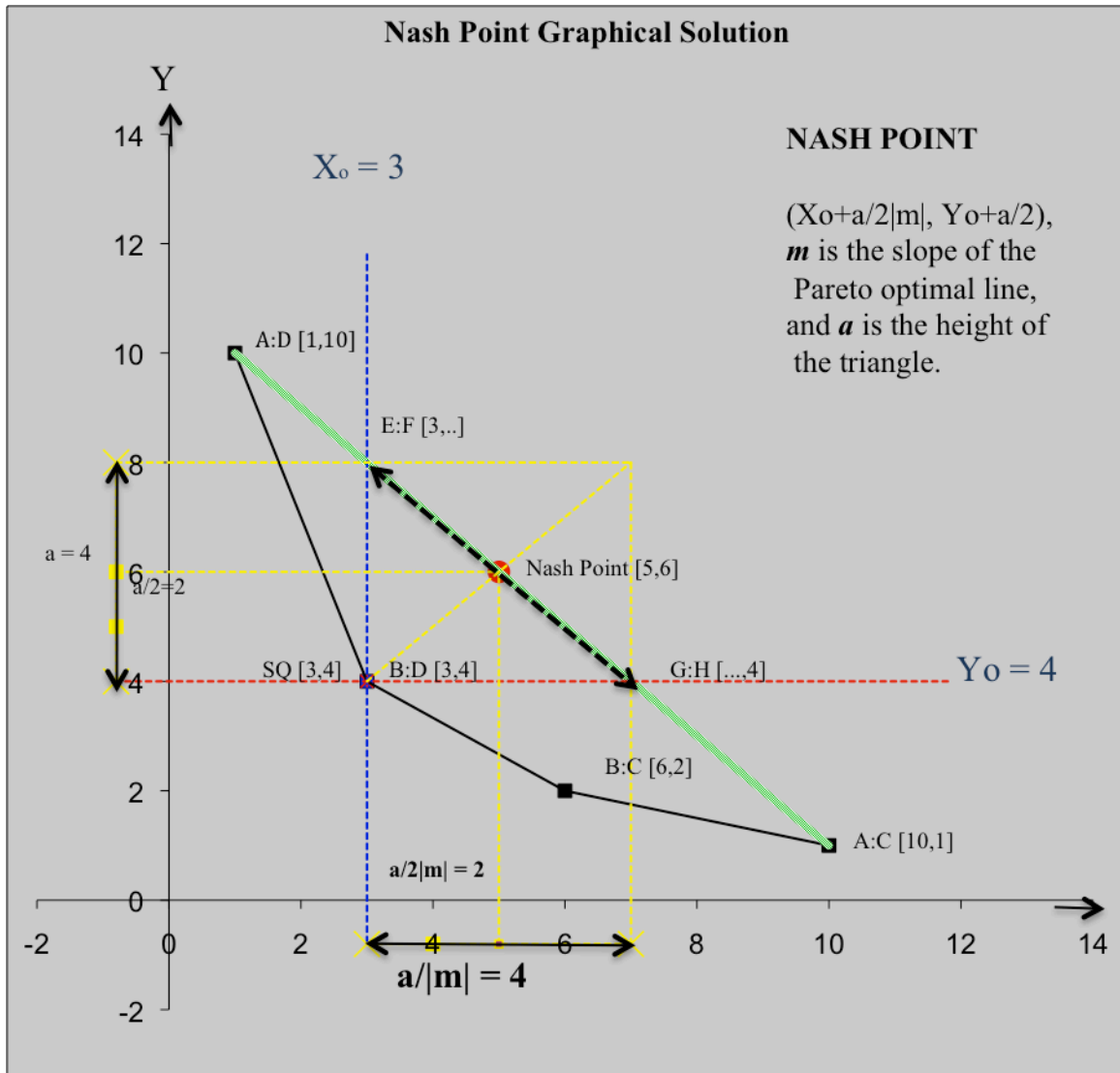
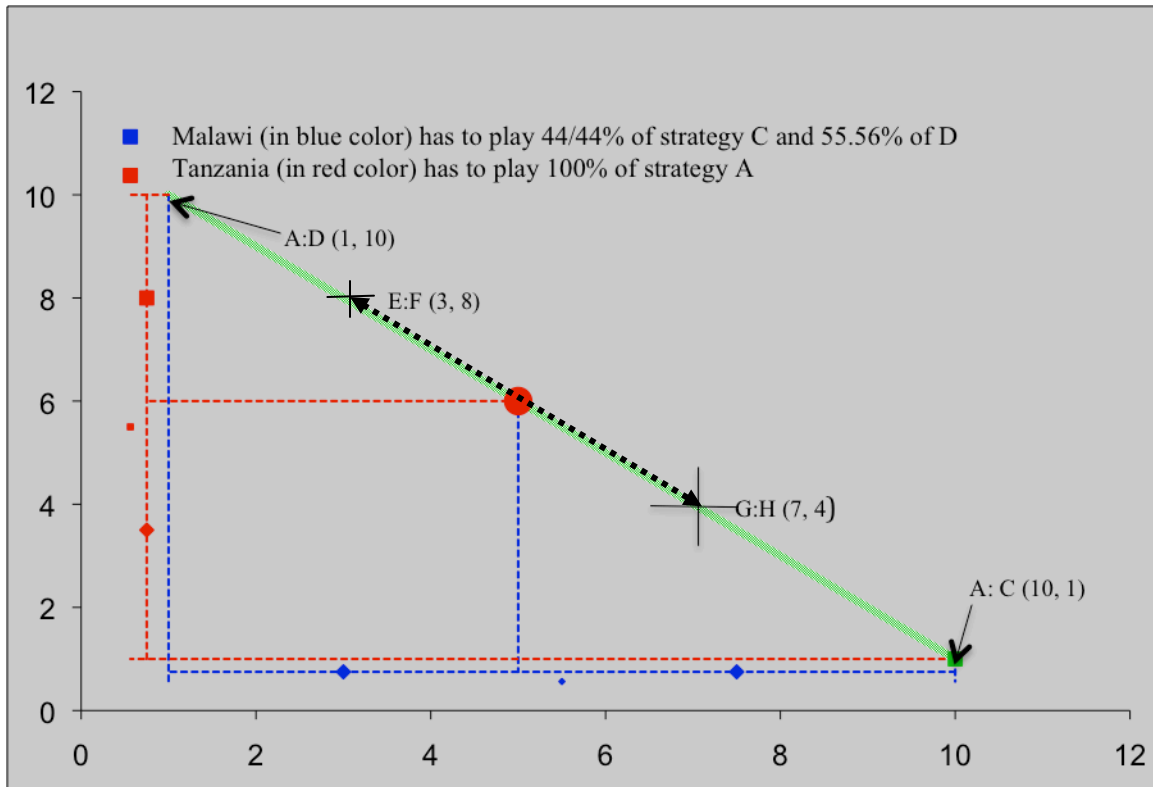


Figure 11. The Nash Arbitration Point-Graphical Solution

Since the game resolution lies on line segment **AD—AC**, the players should play pure strategy options with definite probabilities. The graphical solution shows that Malawi should always play 44.44% of strategy **C** and 55.56% of strategy **D**, while Tanzania should play 100% of strategy **A**, as shown in Figure 12.



b. Nash Arbitration Algebraic Solution

(1) Nash Point Calculation. A formula for numeric calculation of the Nash Point is derived from Figure 11 as Nash point $[X_o + a/2|m|, Y_o + a/2]$. Where m is the slope of the Pareto optimal line, X_o and Y_o are status quo coordinates, which is equivalent to security levels of respective players, and a is the height of the Nash triangle from point BD (3, 4) to point E: F (3, ..). Calculation of the required parameters should be as follows:

- Equation of the Pareto line connecting coordinates AD (1, 10) and AC (10, 1) is $y = mx + c$, where c is the y-intercept.
- Therefore $m = (Y_2 - Y_1) / (X_2 - X_1) = (1 - 10) / (10 - 1) = -1$
- Then $c = Y_1 - mX_1 = 10 - (-1 * 1) = 11$
- The equation for the Pareto line is $y = -x + 11$.

Next, is the calculation of the **height of the Nash triangle**, which is the intercept of the Pareto optimal line and the X_o (X value of the status quo) minus Y_o .

- Let a equal the height of the Nash triangle and Y_i be the y value at the intercept with the Pareto optimal line at **EF**.
- Therefore, $Y_i = mX_o + c$
- $Y_i = -1*3 + 11 = 8$. Therefore point E:F is (3, 8) and Point G:H equals $X_o + 4 = 3 + 4 = 7$
- Since $Y_i - Y_o = a$; then $a = 8 - 4 = 4$

Finally, the Nash Point is obtained by substituting relevant values in the Nash Point equation: Nash Point $[X_o + a/2|m|, Y_o + a/2]$.

- $X_{Nash} = X_o + a/2|m| = 3 + 4/2|-1| = 3 + 2 = 5$
- $Y_{Nash} = Y_o + b/2 = 4 + 4/2 = 4 + 2 = 6$
- The Nash Point is therefore, **(5, 6)**.

(2) Algebraic Implementation of the Nash Arbitration. To implement the Nash arbitrations, calculation of the relative frequency should also be derived from Figure 12 above. In practice, the 'negotiating set' line (the dashed line EF to GH) should be measured and the relative frequency calculated by the ratio method. However, Feix provides an easier method: "One can calculate the difference on the X-axis between the Nash Point and the Pure Strategy solutions." ¹³⁰ Whereas (referring Figure 12):

- $1 - \{|X_{Nash} - X_{AC}|/|X_{AD} - X_{AC}|\}$ is the relative frequency of **AC** ... (1).
- $1 - \{|X_{Nash} - X_{AD}|/|X_{AD} - X_{AC}|\}$ is the relative frequency of **AD** ... (2)

Using the equations (1) and (2) at **AC (10, 1)** and **AD (1, 10)** we have:

- $1 - \{|5 - 10|/|1 - 10|\} = 1 - \{|-5|/|-9|\} = 1 - 5/9 = .4444$ or 44.44% of strategy **AC** and
- $1 - \{|5 - 1|/|1 - 10|\} = 1 - \{|4|/|-9|\} = 1 - 4/9 = .5556$ or 55.56 % of strategy **AD**.

¹³⁰ Feix Miroslav, "Game Theory: Toolkit and Workbook for Defense Analysis Student," (Monterey: Naval Postgraduate School Master's Thesis, June 2007, 48.

From Figure 12, the Nash Point suggests that the two countries should compromise on the border location, aiming for the boundary line to be located at the middle of Lake Nyasa. Therefore, in cooperative play, Malawi should play 44.44% strategy **C** and 55.56% strategy **D**, while Tanzania plays strategy **A** all the times. Malawi has agreed to withdraw its eastern boundary claim and maintain its legal part of the lake. Tanzania maintains strategy **A**. In a cooperative situation, Tanzania can play strategy **A** only, because strategy **B** is applicable in selfish and hostile situations. However, one should note that the game is difficult, because Malawi has a dominant strategy. If Tanzania plays strategy **A** or **B**, Malawi will play its dominant strategy **D**. For that reason, there has to be a covenant or a procedure to make certain that the game is played in coordination.

The game shows that enlightened leadership can always opt for better choices when seeking security and stability for their countries. Unselfishness and confident trust is a hallmark of friendship that fosters bilateral relationships and regional integration. Once the two countries make an agreement, Malawi will withdraw its claim and mapping procedures may begin. To triumph, Tanzania and Malawi should now decide how to play to achieve the arbitrated outcome. Suggestions to review the Malawi-Tanzania border given in the ‘International Boundary Study No. 37’ can be readily implemented.¹³¹ Consequently, cooperation creates an enduring foundation for joint development projects and a reliable environment for Malawi and Tanzania to provide their citizens quality livelihoods; this is the fulfillment of the ‘social contract.’

¹³¹ “International Boundary Study No. 37 – October 26, 1964, Malawi – Tanzania (Tanganyika and Zanzibar) Boundary (Country Codes: MI – TZ),” *Department of State – United States of America*.

IV. CONCLUSION AND RECOMMENDATIONS

Through...., and clever maneuvering (**strategy/policy**), a general can win without shedding blood.

—Sun Tsu, The Art of War

A. CONCLUSION

This study has posited that, given prudent and congenial leadership in Malawi and Tanzania, a resolution to the border dispute over Lake Nyasa is possible. The border dispute has been ongoing for five decades, making it an incessantly potential ‘conflict flashpoint’ for three main reasons. First, Malawi’s claim to the entire lake, which goes against the internationally recognized border, is perilous for both countries and the region at large. Second, tensions still simmer over the violent behavior both countries observed during the 1990s and Malawi’s accusation of illegal fishing by Tanzanian fishermen and their subsequent ban on fishing in the lake, as depicted in Figure 13.



Figure 13. The Contested Boundary (From: Google Earth Satellite Maps)

Third, resources from Lake Nyasa, which make up the livelihood for inhabitants dwelling in the region, are thinning at an alarming rate. The problem is exacerbated by high population growth and the destruction of watersheds in the surrounding highlands,

which in turn decreases water levels in the lake. Overfishing, sediment loading, and climate changes have intensified the problem. These conditions broaden instability in the region and produce a security threat that needs attention for mutual cohabitation between Malawi and Tanzania.

The study has shown that border disputes abound all over the world, and their resolution is possible through democratic processes and international arbitration and negotiations, rather than through armed conflicts. Democracies (specifically the Western Democracies) have managed to minimize adverse consequences associated with border disputes. Democracies do not resort to military confrontations against each other. They also practice restraint against first moves towards non-democratic states in the areas of border disagreement. North America and European countries are free of border conflicts; amicable coexistence is enabled by appropriate border management policies. Today the EU is a stable alliance and has no active border disputes. The Canadian-U.S. border is well managed by both countries and even the porous Mexico-U.S. border is equally managed by the April 18, 1972 accord.

In Africa, instability is commonplace. Border disputes underscore the region's underdevelopment; they are been among the most basic source of bitter struggles. They cause relentless strife, including refugee problems, environmental degradation, deforestation, small arms proliferation, organized crime, and other regional instabilities. Along with these problems, the most debilitating growth factor is diseases, especially Malaria and HIV/AIDS. In 2001, Dare observed that undemocratic rulers, non-progressive governments, and weak financial systems have not improved much. Governments are still failing to maintain social and political order, and today new flashpoints are developing in countries such as the Ivory Coast and Nigeria. Despite Africa's privileged circumstances, in terms of human and natural resources, extreme poverty and hunger thrive on the continent.

This thesis argued that a leadership vacuum and lack of political will are largely to blame for holding back Africa's development. The situation is additionally aggravated by conflicts emanating from the artificial borders drawn in Berlin in the 1880s. This is also the basis for the border problem between Malawi and Tanzania along Lake Nyasa.

The unresolved boundary treaty (referred to as the colonial legacy) between Malawi and Tanzania, however, is no longer a cloak for dysfunctional leadership. It is a fact that colonialism changed the African social structure, and its brief stay did not permit construction of a new structure to go along with modern development and compliment these changes. Despite this, Nyerere the Father of the Tanzanian Nation managed to lay the foundation for development in Tanzania. Unfortunately, but progress is being held back by both internal and external factors. Internally it appears political will is not in place to implement his vision. Externally Tanzania is affected by events like the failure of the EAC and other regional instabilities, including the border dispute with Malawi. Conflicts foster mistrust and impinge heavily on human development in the region. The role democracy plays in mitigating border problems is the solution to the Tanzania and Malawi border conflict.

The thesis underpinned the importance of cooperation in nations' efforts to resolve border conflicts. The mathematical tools in the branch of game theory were used to propose a plausible solution for the conflict between Malawi and Tanzania. Once the will to mutually gain from an antagonistic situation was engendered, teamwork promoted progress amidst the rivals. It revealed that cooperation permits communications; as a result, the opponents were able to achieve mutual gains through partial sum games. Poor payoffs were achieved from selfish strategic moves, specifically from the absence of communication between Tanzania and Malawi. Improved payoffs, in turn, were realized with better communication and achievements beneficial to all were realized with better communication. A reduced conflict situation creates an atmosphere that is conducive for enhanced bilateral cooperation and mutual development between the two states.

The game demonstrated that enlightened leadership can always opt for better choices when seeking security and stability for its country. Additionally, unselfishness and trust help to foster bilateral relationships and regional integration. Consequently, cooperation creates an enduring foundation for joint development projects and a reliable environment for Malawi and Tanzania to provide their citizens with quality livelihoods; which is the fulfillment of the 'social contract.'

B. RECOMMENDATIONS

The Game theory is only a tool to suggest a way out of Malawi and Tanzania's border dispute. The crux of the matter boils down to strong wills that enable compromise and firm decision-making. The ongoing situation along Lake Nyasa, if left unchecked, could spiral into war. Yet the border dispute resolution and its implementation are impossible without leadership commitment and political will. The best option is a congenial agreement between Malawi and Tanzania. Consequently it is recommended:

- To review the Malawi-Tanzania border as recommended in the 'International Boundary Study No. 37.' Malawi and Tanzania should meet to discuss and agree to resolve the border dispute along Lake Nyasa.
- Both countries should work together to implement the agreement by mapping the border according to international regulations governing inland waterways and lakes.
- Each country should undertake measures to control the destruction of water catchments around Lake Nyasa specifically deforestation and bad farming practices. Population control may also be beneficial to Malawi and Tanzania.
- Malawi and Tanzania should devise a cooperative framework that will enable joint projects; specifically hydropower production and fishing. Control of bad fishing practices should be paramount.

LIST OF REFERENCES

- Adebajo, Adekeye. "Building Sustainable Peace." *Towards Pax Africana: Building Peace in Africa*. Prepared for web discussion. (September 2006).
<http://www.trustafrica.org/documents/adebajo.pdf> (accessed December 19, 2010).
- Adebajo, Adekeye and Chris Landsbergs. "Pax Africana in the Age of Extremes." *South African Journal of International Affairs* Vol. 7. No. 1 (Summer, 2000): 12–15.
- Adusei, Lord Aitkins. "African Union Day: Calling on Africa to Unite." *AFRIK-NEWS*.
<http://en.afrik.com/article17706.html> (accessed June 18, 2010).
- Anderson, Ewan W. *International Boundaries: A geographical Atlas*. New York: Routledge, 2003. <http://books.google.com/books?id=E7menNPxREC&pgEwAQ#v=onepage&q=1901%20boundary%.pdf> (accessed June 12, 2010).
- Anyu, Ndumbe. "International Court of Justice and Border-Conflict Resolution in Africa: The Bakassi Peninsular Conflict." *Mediterranean Quarterly* Volume 18. Number 3. (Summer, 2007): 39–55.
- Axelrod, Robert. *The Evolution of Cooperation*. USA: Basic Books, 1984.
- . "Beyond the Midpoint: Achieving the Millennium Development Goals." *News Room United Nations Development Program*. <http://content.undp.org/go/newsromm/publications/povertyreduction/povertywebsite/mdgs/beyondthemidpoint.en> (accessed January 26, 2011).
- Ayittey, George B. N., and Ludovick Shirima. "Failures of African Leaders on the Continent-Julius Nyerere: A Saint or Knave." An FAF Publication in *The Wall Street Journal (Europe)* (October 20, 2010): 12. <http://www.freeafrica.org/articles/failedleadership/juliusnyere.html> (accessed December 20, 2010).
- Blanchard, Jean-Marc F. "Linking Border Disputes and War: An Institutional – Statist Theory." *Geopolitics* Volume 10. Issue 4. (Winter, 2005): 688–711.
<http://www.ingentaconnect.com/content/routledg/geo/2005/00000010/00000004/art00008> (accessed June 16, 2010).
- Boddy-Evans, Alistair. "Julius Kambarage Nyerere Quotes." <http://africanhistory.about.com/od/biography/a/qts-Nyerere01.htm> (accessed December 15, 2010).
- Bootsma, Harvey A. "Lake Malawi/Nyasa. Experience and Lessons Learned Brief." *Great Lakes WATER Institute*. University of Wisconsin-Milwaukee, USA.
http://www.iwlearn.net/publications/II/lake_malawi_nyasa_200.pdf (accessed July 13, 2010).

- Bunting, Ikaweba. "The Heart of Africa, Interview with Julius Nyerere on Anti-Colonialism." *New Internationalist Magazine* Issue 309. (January-February 1999). <http://www.hartford-hwp.com/archives/30/049.html> (accessed June 25, 2010).
- Charney, Craig. "What is Political Will? How is it Measured?" http://www.charneyresearch.com/pdf/09May5_Charney_Newsletter_Political_Will.pdf (accessed July 30, 2010).
- Clark, Frank Emerson. *A Treatise on the Law of Surveying and Boundaries*. Indianapolis: The Bobbs – Merrill Company, 1922.
- Cleverland, Cutler J. "Armed Conflict in Africa: A Threat to Regional Cooperation." *The Encyclopedia of the Earth*. http://www.eoearth.org/article/Armed_conflict_in_Africa:_a_threat_to_regional_cooperation (accessed July 25, 2010).
- Collier, Paul. "Bad Guys-They Put Failed in Failed States." *Foreign Policy* Global Politics, Economies, and Ideas. (July/August, 2010): 88.
- . "Colonial Errors Border Disputes in East Africa." *Diplomat East Africa*. http://diplomateastafrica.com/index.php?option=com_content&view=article&id=360:colonial-errors-border-disputes-in-ea-region&catid=1:dna&Itemid=66 (accessed January 13, 2011).
- . Consortium for Mathematics and Its Application (COMAP). *For All Practical Purposes: Mathematical Literacy in Today's World*. 6th Edition. New York: W.H. Freeman and Company, 2003.
- Cook, Jennifer G. "The Election Crisis in Cote-d'Ivoire." *The Center for Strategic & International Studies (CSIS)*. <http://csis.org/publication/election-crisis-ivory-coast> (accessed December 19, 2010).
- Dare, S. "A Continent in Crisis. Africa and Globalization." *Dollars and Sense Magazine* July/August Issue (2001). http://www.thirdworldtraveler.com/Africa/Continent_Crisis.html (accessed June 14, 2010).
- Diamond, Jared. *Collapse: How Societies Choose to Fall or Succeed*. New York: Penguin Group, 2005.
- Dixit, Avinash K., and Barry J. Nalebuff. *Thinking Strategically: The Competitive Edge in Business, Politics, and Everyday Life*. New York London: W.W. Norton and Company, 1991.
- Domínguez, Jorge I., David Mares. Orozco Manuel, Palmer David Scott, Aravena Francisco Rojas, and Serbin, Andrés. "Boundary Disputes in Latin America." *United States Institute of Peace*. <http://www.usip.org/files/resources/pwks50.pdf> (accessed June 14, 2010).

- Fox Jr., John and Michael Warner. "Counterintelligence: The American Experience," In *Vaults Mirrors and Masks: Rediscovering US Counterintelligence*. Edited by Jennifer E. Sims and Burton Gerber, 51 – 68. Washington D.C: Georgetown University Press, 2009.
- Fukuyama, Francis. *State Building: Governance and World Order in the 21st Century*. Ithaca: Cornell University Press, 2004.
- . "Geography and Map of Malawi." About.com. <http://geography.about.com/library/cia/blcmalawi.htm> (accessed January 22, 2011).
- Gerzon, Mark. *Leading Through Conflict: How Successful Leaders Transform Differences Into Opportunities*. Boston Massachusetts: Harvard Business School Press, 2006.
- Gettleman, Jeffrey. "Disputed Vote Plunge Kenya Into Bloodshed." *The New York Times* (December 31, 2007). <http://www.nytimes.com/2007/12/31/world/africa/31kenya.html> (accessed December 19, 2010).
- Ghani, Ejaz and Lakshmi Iyer. "Conflict and Development: Lessons From South East Asia." *VOX Research*. <http://www.voxeu.org/index.php?q=node/4794> (accessed July 22, 2010).
- Gleditsch, Nils Petter. "Conflict Over Shared Rivers: Resource Scarcity of Fuzzy Boundaries?" *Political Geography* Elsevier Ltd. 25 (2006): 361–382. <http://www.elsevier.com/locate/polgeo> (accessed July 7, 2010).
- . "Global Conflict Trends. Systemic Peace." *University of Maryland's Centre for International Development and Conflict Management*. <http://www.systemicpeace.org/document.htm> (accessed June 16, 2010).
- Godwin, Peter. *When a Crocodile Eats the Sun: A memoir of Africa*. New York: Little, Brown and Company, 2008.
- . Google Earth Satellite Maps. © 2011 LeadDog Consulting U.S. Department of State Geographer 10° 37' 06.66" S, 34° 22' 34.91" E, elev 1, 326 m. (accessed March 08, 2011).
- . "Government Statistics – Transnational Issues, Disputes, International (most recent) by country." NationMaster.COM. http://www.nationmaster.com/graph/gov_tra_iss_dis_int-government-transnational-issues-disputes-international (accessed January 22, 2011).
- Guo, Rongxing. "Cross Border Resource Management – Theory and Practice (The Final Report East Asian Development Network (EADN)) 2004." <http://www.eadn.org/report/upweb/wp28.pdf> (accessed July 7, 2010).

- Hersey, John. *A Bell for Adano*. New York: Random House Inc., 1946.
- . “History UK – History of England.” *The History and Heritage Accommodation Guide* Historic-UK.Com. <http://www.historicuk.com/HistoryUK/EnglandHistory/RomanEngland.htm> (accessed March 17, 2011).
- Holsti, Kalevi J. *The State, War, and the State of War*. Cambridge: Cambridge University Press, 1996.
- Huntington, Samuel P. *Political Order in Changing Societies*. New Haven: Yale University Press, 1996.
- . *The Third Wave: Democratization in the Late Twentieth Century*. Oklahoma: University of Oklahoma Press, 1991.
- Huth Paul K. and Todd L. Allee. *The Democratic Peace and Territorial Conflict in the Twentieth Century*. Cambridge: Cambridge University Press, 2003.
- . “Information and Data About Marketing, Finance, Business, Healthcare, and Classifieds-Reach Information.” *Lake Malawi*. <http://www.reachinformation.com/define/Lake%20Malawi.aspx> (accessed July 6, 2010).
- . “International Boundary Study, No. 37 - October 26, 1964, Malawi – Tanzania (Tanganyika and Zanzibar) Boundary (Country Codes MI: TZ).” *Department of State: United States of America*. <http://www.law.fsu.edu/library/collection/LimitsinSeas/IBS037.pdf> (accessed June 15, 2010).
- . “International Boundary Study, No. 55 – September 1, 1965, Tanzania – Uganda Boundary (Country Codes: TZ-UG).” *Department of State: United States of America*. <http://www.law.fsu.edu/library/collection/LimitsinSeas/IBS055.pdf> (accessed June 24, 2010).
- . “International Disputes,” *CIA, The World Factbook – Field Listing*. <https://www.cia.gov/library/publications/the-world-factbook/fields/2070.html> (accessed June 26, 2010).
- . “International Law - MARITIME SPACES AND BOUNDARIES.” *Encyclopedia Britannica*. <http://www.britannica.com/EBchecked/topic/291011/int-law/233511/Maritime-spaces-and-boundaries> (accessed June 1, 2010).
- Jackson, Robert H., and Carl G. Rosberg. *Personal Rule in Black Africa, Prince, Autocrat, Prophet, Tyrant*. Berkeley: University of California Press, 1982.
- Jones, A. J. *Game Theory: Mathematical Models of Conflict*. Chichester: Elis Harwood Limited, 1980.

- Jube, Faraja. "Tanzania: Discussions to Solve Malawi Border Conflict Soon." *The Citizen Dar es Salaam* (February 4, 2010). <http://allafrica.com/stories/201002050139.htm> (accessed June 19, 2010).
- Kaggwa, K. "Fall of Idi Amin," *Economic and Political Weekly* Vol. 14. No. 21 (May 26, 1979): 907–910. <http://courses.essex.ac.uk/gv/gv104/econweekly.pdf> (accessed June 24, 2010).
- Kaikobad, Kaiyan Homi. *Interpretation and Revision of International Boundary Decisions*. Cambridge: Cambridge University Press, 2008.
- Kato, Levina. "Lake Nyasa Dispute Resolvable." From the Parliament. *Daily News Tanzania* (February 4, 2010). <http://www.dailynews.co.tz/bunge/?n=7245> (accessed January 22, 2011).
- Kaufman, Daniel. "World Governance Indicators (WGI)." *Brookings Institution, World Bank Development Economics Research Group*. <http://info.worldbank.org/governance/wgi/index.asp> (accessed January 2, 2011).
- Kittner, Cristiana C. Brafman. "The Role of Safe Havens in Islamist Terrorism." *Terrorism and Political Violence* Volume 19. Issue 3. (2007): 307 – 329. <http://www.informaworld.com/smpp/content~content=a780502437~db=all~order=page.pdf> (accessed March 26, 2011).
- Klare, Michael T. *Resources Wars: The New landscape of Global Conflict*. New York: Henry Holt and Company LLC, 2001.
- . "The New Geography of Conflict." *Foreign Affairs* (May/Jun 2001): 49–61.
- . "Lake Nyasa: Definition." Answers.Com. <http://www.answers.com/topic/lake-malawi> (accessed July 6, 2010).
- . "Lake Nyasa Definition." *Britannica Concise Encyclopedia*. <http://www.answers.com/topic/lake-malawi> (accessed June 2, 2010).
- . "Lake Nyasa Facts, information, pictures." *The Columbia Encyclopedia*. Sixth Edition, 2008. Encyclopedia.com. <http://www.encyclopedia.com/doc/1E1-Nyasa-la.html> (accessed July 8, 2010).
- Levy, Jack S. "International Source of Interstate and Intrastate War." In *Leashing the Dogs of War: Conflict Management in a Divided World*. Edited by Crocker, Chester A. Hampson, Fen Osler and Aall, Pamela R., 17–38. Washington: Endowment of the United States Institute of Peace, 2007.
- Luhwago, Rodgers. "MPs Want Lake Nyasa Border Dispute Resolved." *The Guardian*. <http://www.ippmedia.com/frontend/index.php?i=13378> (accessed January 13, 2011).

- Mandel, Robert. "Roots of the Modern Interstate Border Dispute." *The Journal of Conflict Resolution* Vol. 24. No. 3 (September 1980): 427–454. <http://www.jstor.org/stable/173640?seq=1> (accessed June 18, 2010).
- . "Map of East Africa (Railways, Towns and Products)." *Probert Encyclopedia*. <http://www.probertencyclopedia.com/photolib/maps/%201937.htm> (accessed June 14, 2010).
- Marshall, Monty G. "Conflict Trends in Africa, 1946 - 2004. A Macro-Comparative Perspective." *Centre for Systemic Peace*. <http://www.systemicpeace.org/africa/AfricaConflictTrends MGM 2005us.pdf> (accessed June 14, 2010).
- Martinsson, Jenny. "Changes in the Course of the River Komadugu Yobe During the 20th Century at the Border Between Niger and Nigeria." Master's Thesis TVVR 10/5005. Lund University. <http://lup.lub.lu.se/luur/download?func=downloadFile&recordId=1546003&fileId=1546009> (accessed December 20, 2010).
- Mayall, James. "The Malawi-Tanzania Boundary Dispute." *The Journal of Modern African Studies* Volume 11. Issue No. 4 (December 1973): 611–628.
- McKinsey, J. C. C. "Some Notions and Problems of Game Theory." <http://www.ams.org/journals/bull/1952-58-06/S0002-9904-1952-09648-8.pdf> (accessed January 22, 2011).
- Miroslav, Feix. *Game Theory: Toolkit and Workbook for Defense Analysis Student*. Master's Thesis. Monterey: Naval Postgraduate School, 2007.
- Mkapa, Benjamin William. "Welcoming Statement by the President of the United Republic of Tanzania, His Excellency Benjamin William Mkapa, at the First Summit of the International Conference on the Great Lakes." Dar es Salaam. November 19, 2004. http://www.tanzania.go.tz/hotuba/hotuba/041119_Great_Lakes_Summit.htm. (accessed December 23, 2010).
- Mwita, Sosthenes. "Government Clarifies on Tanzania – Malawi Border." *Kilimanjaro Forum*. <http://www.kforumonline.com/viewtopic.php?t=712&sid=6ff7f94b3f06010d9542913ba89b2ac2> (accessed January 13, 2011).
- Nayenga, Peter F. B. "Review: The Overthrowing of Idi Amin: An Analysis of the War." *Africa Today* Vol. 31. No. 3rd Qtr. (1984): 69–71. <http://www.jstor.org/stable/4186254.pdf> (accessed June 24, 2010).
- Newman, Edward. "Failed States and International Order: Constructing a Post-Westphalian World." *Contemporary Security Policy* Vol. 30. Issue 3: (December 2009): 421–443. <http://www.informaworld.com/smpp/section?content=a917248885&fulltext=71324928>. (accessed December 20, 2010).

- Nindi, Stephen J. "Changing Livelihoods and Environment Along Lake Nyasa, Tanzania." *African Study Monographs* Suppl. 36. (March 2007): 71–93. http://www.africa.kyotou.ac.jp/kiroku/asm_suppl/abstracts/pdf/ASM_s36/5ASM_Nindi2.pdf (accessed June 30, 2010).
- Nizza, Mike. "All Eyes on Zimbabwe's Election Results." *The New York Times* April 1, 2008. <http://thelede.blogs.nytimes.com/2008/04/01/all-eyes-on-zimbabweselecti-on-results/> (accessed December 19, 2010).
- Nordquist, Kjell-Ake. "Boundary Conflicts and Preventive Diplomacy." Chapter 2. *Wilson Center*. <http://www.wilsoncenter.org/subcites/ccpdc/zart/ch2.htm> (accessed February 10, 2011).
- Nyerere, Julius. "Good Governance for Africa: 1998." Transcribed by Ayanda Madyibi. <http://www.marxist.org/subject/africa/nyerere/1998/10/13.htm> (accessed December 20, 2010).
- Olita, Reuben. "Kenya: Moi Speaks Out on Misingo Dispute." *The New Vision* May 18, 2009. <http://allafrica.com/stories/200905190177.html> (accessed December 23, 2010).
- Patrick, Stewart. "Weak States and Global Threats: Assessing Evidence of Spillovers." *Center for Global Development*. <http://www.cgdev.org> (accessed June 30, 2010).
- Payan, Tony. *The Three U.S. – Mexico Border Wars: Drugs, Immigration, and Homeland Security*. Westport, CT, London: Praeger Security International, 2006.
- Pearse, Erin. "Math 121 – Game Theory Review." <http://math.ou.ed/-epearse/resources/Math121-Game-Theory/121review.pdf> (accessed February 10, 2011).
- . "Political Will." *Longman Dictionary of Contemporary English*. <http://www.Idoceo nline.com/ dictionary/will2> (accessed July 30, 2010).
- Pratt, Cranford. *The Critical Phase in Tanzania, 1945 - 68: Nyerere and the Emergency of a Socialist Strategy*. Oxford: Oxford University Press East African Branch, 1980.
- Prescott, Robert Victor, and William Doreen Triggs. *International Frontiers and Boundaries: Laws, Politics, and Geography*. Leiden: Koninklijke Brill NV, 2008. <http://books.google.combooks?id=r4fJXX> (accessed July 9, 2010).
- Rabasa Angela, Steven Boraz, Peter Chalkr, Kim Cragin, Theodore W. Karasik, Jennifer D. P. Moroney, Kevin A. O'Brien., and Peters E. *Ungoverned Territories: Understanding and Reducing Terrorism Risks*. RAND PROJECT AIR FORCE. Santa Monica, CA: The RAND Corporation, 2007. http://www.rand.org/content/dam/randpubs/monographs/2007/RAND_MG561.pdf (accessed February 12, 2011).

- Savage, Sandra H. *Instructors Guide to Accompany: For All Practical Purposes: Introduction to Contemporary Mathematics*. 2nd Edition. New York: W.H. Freeman and Company, 1991.
- Shah, Anup. "Conflicts in Africa-Introduction." <http://www.globalissues.org/article/84/conflicts-in-africa-introduction> (accessed June 18, 2010).
- Shore, Zachary. *Blunder: Why Smart People Make Bad Decisions*. New York: Bloomsbury, 2008.
- . "Situation in Ivory Coast Grows Dire." *Special Reports* Published: March 14, 2011. http://www.upi.com/Top_News/Special/2011/03/14/Situation-in-Ivory-Coast-grows-dire/UPI-59601300120633/#ixaa1GkjJXLfE (accessed March 16, 2011).
- Somerville, Keith. "Border Dispute an African Colonial Legacy." *BBC News Online* Thursday October 10, 2002. <http://news.bbc.co.uk/2/hi/africa/2316645.stm> (accessed June 11, 2010).
- . "Songwe River Sours Malawi, Tanzania Environment." *Malawi/Tanzania. afrol News* 18 May. <http://www.afrol.com/articles/12447> (accessed December 23, 2010).
- Spector, Bertram I. "Transboundary Environmental Disputes." *Center for Negotiations Analysis*. Wilson Centre. <http://www.wilsoncenter.org/subcites/ccpdc/zart/ch2.htm> (accessed August 6, 2010).
- Stojanow, Janko. *On the absolute Rational Will*. An Online Book. <http://www.jgora.dialog.net.pl/OnTheAbsoluteRationalWill/Politovolia.htm> (accessed July 30, 2010).
- Straffin, Philip D. *Game Theory and Strategy*. Washington, DC: Mathematical Association of America Inc., 1993.
- Strong, Thomas. "Riparian Rights." PDH Course L 124. <http://www.PDHonline.org> (accessed July 25, 2010).
- Sydeham, S., and R. Thomas. "Julius Nyerere Online." [www.kidcyber.com.au\[2010\]](http://www.kidcyber.com.au[2010]) (accessed December 20, 2010).
- . "Tanzania Boundary With Neighboring Countries." *Airlineamb.org*. http://www.airlineamb.org/toplevel/5_Trips/AAI_Missions/Mexico/images/tzmap.gif (accessed June 24, 2010).
- . "The Africa Guide." *African Countries*. <http://www.africaguide.com/country.htm> (accessed July 25, 2010).

- . “The Boundary - The International Boundary.” *International Boundary Commission*. <http://www.internationalboundarycommission.org/boundary.html> (accessed June 22, 2010).
- . “The Democratic Challenge in Africa.” *The Carter Center*. Working Papers. <http://www.ciaonet.org/conf/car/03> (accessed November 8, 2010).
- . “The Guendolen vs. Hermann Von Wissmann.” <http://www.clashofsteel.org/pages/battledetails.php?battle=GUENDOLENVO1> (accessed July 6, 2010).
- . “The Partition of Africa|The Black Past: Remembered and Reclaimed.” BlackPast.org. <http://www.blackpast.com/?q=gah/partition-africa> (accessed June 15, 2010).
- . Tocqueville: Book II Chapter 5. http://xroads.virginia.edu/~HYPER/DETOC/ch2_05.htm (accessed December 15, 2010).
- . United Nations Development Program (UNDP). *Deepening Democracy in a Fragmented World. UNDP Human Development Report 2002*. New York: Oxford University Press, 2002.
- . “Wilhelmine Germany and the First World War, 1890-1918, Anglo-German Treaty [Heligoland-Zanzibar Treaty] (July 1, 1890.” *Germany History in Documents and Images*. Volume 5. http://germanhistorydocs.ghidc.org/pdf/eng/606_Anglo-German%20Treaty_110.pdf (accessed June 21, 2010).
- Williams, Conor and John Halpin. “The Progressivism of America’s Founding.” *Center for American Progress*. http://www.americanprogress.org/issues/2010/10/pdf/progress_ivetraditions5.pdf (accessed December 15, 2010).
- Wilson, Nigel Guy. *Encyclopedia of Ancient Greece*. New York: Routledge Taylor and Francis Group, 2006. <http://books.google.com/books?id=-aFtPdh6-2QC> (accessed June 26, 2010).
- Wolfensohn, James D. “Statement on the Death of Julius Nyerere.” www.sahistory.org.za/pages/chronology/thisday/1999-10-14.htm (accessed December 20, 2010).
- . “Zambia Malawi in Border Talks.” *News24.com: Africa News* (May 17, 2005). <http://www.news24.com/Africa/News/Zambia-Malawi-in-border-talks-20050517> (accessed December 23, 2010).

THIS PAGE INTENTIONALLY LEFT BLANK

INITIAL DISTRIBUTION LIST

1. Defense Technical Information Center
Ft. Belvoir, Virginia
2. Dudley Knox Library
Naval Postgraduate School
Monterey, California
3. Tanzania Peoples Defence Forces
Dar es Salaam, Tanzania